Syssies Progress Meeting

Thursday 11th January 1996

11.00 am Room 2509

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

   Admin (JENNY)

   Applications and User Environment (JTB)

   CS1 Environment (jtb)
   The ML Kit Compiler (jst)

   System networking (MORNA)

   Printing requirements from Linux and Irix hosts (jst)
   2.5 project/lcfg down (morna)

   Managment (JHB)

   Systems - Hardware (DWB)

   Macintosh (lmb)

   Teaching/Research (AJS/PAUL)

5. Items for Discussion

   Morna Leaving (morna)

6. Any Other Business
7. Date of Next Meeting

Minutes of the Syssies Progress Meeting
Thursday, 11th January 1996

Present: Rosemary Soutar, George Ross, David Baines, Irene Orr, Julian Turnbull, Rainer Thonnes, Jo Blishen, Morna Findlay, Archie Howitt, Paul Anderson, Alastair Scobie, Lindsey Brown, John Butler (Chair), Tracy Combe (Secretary).

Apologies: Doug Rogers, Chris Cooke, Jenny Smith.

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Applications and User Environment

Security JHB will respond to PAUL and GDMR's papers by the next Syssies' meeting.

Action: JHB

Systems Networking

Maintenance Weekend MORNA reported that she switched off the servers prior to the power down and this time suffered no disk failures.

POP Mail Server Pop servers to be installed on all home directory servers. Action on DWB and RWT to mail MORNA with names of home directory servers.

Action: MORNA

Systems Hardware

Macs LMB is in the process of documenting mac locations and configurations. Lindsey will report back when this is completed.

Action: LMB

LCFG Clear out GDMR will instigate a discussion re clearing out obsolete lcfg and hosts entries. He will report back at the next meeting.

Action: GDMR

Teaching/Research

A Meeting has been called for Wednesday 17th January to discuss ideas for a CS4 module in system admin. AJS will report back at the next meeting.

Action: AJS

System Networking

Mid-Year Tuning The mid-year tuning meeting was held just prior to Xmas. Action AJS to write up meeting, cost the options, and present to syssies by email for ratification at next meeting.

Action: AJS

AoB

Newsletter The deadline for the next syssies' newsletter is early February. Action on CC to remind everyone in January.

Action: CC

3. Chairmans Business

There was none.

4. Routine Reports

Admin

Applications and User Environment

CS1 JTB reported that GDMR had previously agreed to write a systems document for the new students before the beginning of February.

Action: GDMR

It was reported that CA1 students have a printing quota unlike CS1 and CP1 students. JHB will speak to RAM about giving all CS1 students printing quotas.

Action: JHB

ML Kit Compiler JST reported that the ML Kit compiler has been added to the list of ML supported for teaching.

System networking

Printing Requirements AJS raised his concern that our printing technology is aging (5 years old) and is difficult to port to new platforms. The meeting agreed that JST should start reappraising the technology.

Action: JST

LCFG MORNA suggested that there should be a meeting to discuss LCFG and find out what problems people are having with it. Action on MORNA to call a meeting of interested syssies.

Action: MORNA

Management

Systems - Hardware

Macs It was confirmed that LMB would be the front line support for the new mac setup (once she has been brought up to speed by CC) and CC would be responsible for building them when they arrive.

It was agreed that when new Macs are to be bought from grants, people should remember to budget for the departmental supported software set. MORNA will bring this up at the next LFCS Equipment Group meeting.

Action: MORNA

Teaching

Research

5. Any Other Business

MORNA Leaving The following tasks need to be taken on by somebody once MORNA leaves:

LFCS server Rebuild due (MORNA will do this with someone shadowing her)
MAIL (MORNA is in the process of writing a technote for this)
LaTeX (JTB and MORNA will redo the latex plan)
4th Year Student (JHB offered to take over the supervision.

As agreed at the previous meeting, JTB will talk to each CO individually to find out what projects are currently underway and planned so that we can make a decision about which things we can drop to take on new developments.

Action: JTB

6. Date of the Next Meeting

Thursday 25th January, 11:00am Room 2509.

There being no other business, the meeting closed at 12.30pm

Deferred Actions

25/1/96 Action on JTB to write a style file for technical reports.

25/1/96 Action on DWB to report on the traffic and disk space problems on the news server.

8/2/96 Action on AJS/PAUL to look at SNMP.

8/2/96 Action on AJS and PAUL to follow up actions raised by "Research" Meeting.

8/2/96 Action on IRO to make the syssies' minutes available on-line.

8/2/96 DWB to form a 2.5 project team and project plan. Plan to have been formed by 8/2/96 - DWB to report back then.

8/2/96 Action on PAUL to look at how we can let technicians edit fields in the lcfg database.

Syssies Progress Meeting

Thursday 25th January 1996

11.00 am Room 2509

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

Admin	**(JENNY)**
Applications and User Environment	**(JTB)**
Security	jhb
Databases	rs
LaTeX	jtb
Internet Services (news)	dwb
System networking	**(MORNA)**
Printers	jst
Support for POP service	paul
X Support	gdmr
Managment	**(JHB)**
CO/CSO work profile	jtb
Systems - Hardware	**(DWB)**
Mac report	lmb/cc
Brief report on Solaris 2.5 project	dwb
Brief report on mid-year tuning	ajs
Teaching/Research	**(AJS/PAUL)**
Brief report on sysadmin module	paul

5. Items for Discussion
6. Any Other Business
7. Date of Next Meeting

1/2 FC.

News support in the Department

Dave Baines

January 25, 1996

1 Introduction

The current configuration of the news server is

- SS2 with 64Mb
- 1.8Gb news spool directory
- 600Mb incoming batched news spool area
- 600Mb news admin partition
- 600Mb oldnews directory

The volume of news through the departmental news server is increasing dramatically. It was doubling every year but has now doubled in the last month. The volume of news being shipped between scotsman and our news server (the average for the last 3 months is about 320Mb/day and for the last month about 600Mb/day) is now almost certainly far greater than the amount of news being read off of our news server. I haven't actually tried to measure this though. It should lead to a reduction in ether traffic overall if news was being read directly off of an EUCS news server.

We have 3 options

- upgrade news server to a more powerful machine with bigger and faster disks
- stop taking some or all of the "recreational" groups
- drop running our own news server and use the EUCS news server.

AI are taking this third option having already tried the second option.

2 News server upgrade

We should be looking to upgrade to a faster machine (SS4 ?) with a fast 4Gb disk for the news spool and a fast 2Gb disk for the other news partitions. This probably wants doing this summer, earlier if possible. If the present rate of increase in volume continues then this will only help for a while.

3 Drop recreational groups

Users could read the recreational groups off of the EUCS news server if they wanted. The support issue, i.e. making it easy for people to switch back and forth between news servers would have to be looked at.

4 Use EUCS news server

A number of issues would have to be considered for this option.

4.1 Capacity and reliability

Is there enough capacity available for the EUCS to absorb the news reading load of the CS department ? On average there are about 50 nntp connections to our news server during the day. We use the local news groups for putting out important information so we would want high reliability.

4.2 Local news groups

Departmental local groups would have to be carried on the EUCS news server. Currently we have groups cs.* and cs-lists.*, the latter being mailing lists which are injected locally into the news system. Presumably these could become something like eduni.dcs.* and eduni.dcs.lists.* Even if we keep our own news server it might be sensible to move to this naming anyway and distribute some of these groups more widely.

4.3 Archiving

We currently archive most of the cs and cs-lists groups and a number of other work related groups. Is there a mechanism for a Department to request groups to be archived and to access the archived groups remotely ?

4.4 News reader support

The current version of the nn newsreader uses its own database, the latest version uses the News Overview database. The EUCS only support the latter. The latest version of nn is now installed locally and the older version will be dropped shortly so this shouldn't cause any problems. The other news readers shouldn't require any extra work.

4.5 User support

A utility would have to be provided to convert users .newsrc files so that they didn't have to start from scratch when the switchover was made.

4.6 Timescales

If it was thought desirable to go ahead with this switchover it could be done during the summer with some preparatory work before then.

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Thursday, 25th January

Present: Rosemary Soutar, George Ross, Jenny Smith, David Baines, Chris Cooke, Julian Turnbull, Irene Orr, Rainer Thonnes, Jo Blishen, Morna Findlay, Archie Howitt Paul Anderson, Alastair Scobie, Lindsey Brown. John Butler (Chair), Tracy Combe (Secretary).

Apologies: Doug Rogers

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Systems Hardware

LCFG Clear out GDMR will instigate a discussion re clearing out obsolete lcfg and host entries. he will report back at the next meeting. *Carried Forward*

Action: GDMR

Systems Networking

LCFG MORNA arranged a meeting to discuss LCFG and find out what problems people were having with it. The conclusion of the meeting was that most problems were with the install object and would be resolved during the 2.5 project. MORNA & RWT is currently doing some installation with the current system and she will report back with any problems.

Action: MORNA/RWT

Applications and User Environment

CS1 JTB reported that GDMR had previously agreed to write a systems document for the new students before the beginning of February. *Carried Forward*

Action: GDMR

It was reported that CA1 students have a printing quota unlike CS1 and CP1 students. JHB will speak to RAM about giving all CS1 students printing quotas. *Carried Forward*

Action: JHB

3. Chairmans Business

There was none.

4. Routine Reports

Admin

Applications and User Environment

Databases RS reported that she is implementing a CS3 database using 4th Dimension. This is a temporary solution for this year until a standard database technology is chosen (as part of the course databases project). RS would like to start investigating the Microsoft SQL server in a month as part of this project. AJS is installing the SQL server.

Security JHB will email his response to GDMR & Paul's papers to the syssies'. GMDR and JHB will write a paper for consumption by the department in general, to be checked by syssies & then presented to the department for discussion/decision.

Action: JHB/GDMR

LaTeX JTB reported LaTeX 2e will be ready to be made the default in about 4 weeks. The technote stylefile is under development - MORNA might test it out while writing her mail technote.

Action: JTB

Internet Services (News) DWB presented a paper re: news support. The meeting decided that Dave should continue with investigating the EUCS new service and consult with AI.

Action: DWB

System networking

Support for POP Service PAUL reported that more people are using POP as their primary mail server and he wanted to know who has responsibility for it. This will be discussed off-line by CC and MORNA.

Action: CC/MORNA

X Support GDMR reported that manufacturers' X support is now mature enough for us to consider ramping down our local building/support of certain parts of X. He reminded the meeting that CDE was now shipping (with Solaris 2.5) and would need investigation.

Management

CO/CSO work profile JTB has spoken to everyone about their workload and she is compiling a list. When complete, JTB will circulate a copy to everyone and then call a meeting to discuss.

Action: JTB

Systems - Hardware

Mac Report Licensed Mac software will be installed as a bundle (all or

nothing) and Mac users made aware of the implications (licensing & support) of opting out. The cost of licensing machines purchased from research grants must come from the grant. LMB has worked out the costings for software licences for each machine, around £250 each. PAUL will try to keep track of the portables in the department and CC and LMB will try and keep track of the Macs. All machines will get IP numbers.

Solaris 2.5 Project DWB reported that he has some notes from the meeting that was held last Friday that he will distribute to the Syssies'. Action on DWB to write a plan for the next Syssies' meeting. He is still finalising the list of who is responsible for which object.

Action: DWB

Mid-year Tuning AJS reported that all the orders went out last week and we should receive the goods within a couple of weeks.

Printers JST reported that he and AJS had met with EUCS to ensure that EUCS & DCS reappraised printing technologies together.

Teaching/Research

Syssies Admin Module PAUL reported that a small group met to discuss a possible system admin module. Such a module would need to include 18 lectures with a minimum of 5 people involved. The module would be able to be implemented for the second half of next year. PAUL will draft a syllabus for discussion by syssies.

Action: PAUL

5. Any Other Business

Newsletter CC reported that the next syssies newsletter is due LATE February. He will remind everyone in early February.

Action: CC

6. Date of the Next Meeting

Thursday 8th February, 11:00am Room 2509.

There being no other business, the meeting closed at 12.15pm

Deferred Actions

8/2/96 Action on AJS/PAUL to look at SNMP.

8/2/96 Action on AJS and PAUL to follow up actions raised by "Research" Meeting.

8/2/96 Action on IRO to make the syssies' minutes available on-line.

8/2/96 DWB to form 1 2.5 project team and project plan. Plan to have been formed by 8/2/96 - DWB to report back then.

22/2/96 Action on AJS and RS to start looking at database technology (eg SQL).

22/2/96 Action on JST to report back on printer discussions with EUCS et al.

22/2/96 DWB to continue investigations re news service, in particular performance issues by speaking to EUCS & AI.

Syssies Progress Meeting

Thursday 8th February 1996

11.00 am Room 2511

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

   Admin (JENNY)

   Applications and User Environment (JTB)

   Latex (jtb)

   System networking (MORNA)

   Backups (gdmr)

   Managment (JHB)

   Systems - Hardware (DWB)

   Recording hardware information (Paul)

   Teaching/Research (AJS/PAUL)

5. Items for Discussion
6. Any Other Business
7. Date of Next Meeting

Minutes of the Syssies Progress Meeting
Thursday, 8th February 1996

Present: Doug Rogers, Rosemary Soutar, George Ross, Jenny Smith, David Baines, Chris Cooke, Julian Turnbull, Rainer Thonnes, Jo Blishen, Morna Findlay, Archie Howitt Paul Anderson, Alastair Scobie, Lindsey Brown. John Butler (Chair), Tracy Combe (Secretary).

Apologies: Irene Orr

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Systems Hardware

LCFG Clear out GDMR will instigate a discussion re clearing out obsolete lcfg and host entries. He will report back at the next meeting. *Carried Forward.*

Action: GDMR

Applications and User Environment

LCFG MORNA reported that she found a few problems while doing some installation. RWT and MORNA will continue to experiment.

Action: MORNA/RWT

It was reported that CA1 students have a printing quota unlike CS1 and CP1 students. JHB will speak to RAM about giving all CS1 students printing quotas. *Carried Forward.*

Action: JHB

Security JHB will write a paper for consumption by the department in general, to be checked by syssies at the next meeting and then presented to the department for discussion/decision.

Action: JHB

Internet Services (News) DWB presented a paper at the last Syssies meeting re: new support. The meeting decided that DWB should continue with investigating the EUCS news service and consult with AI. DWB will report back at the next meeting.

System Networking

Support for POP Service Pop servers have now been decided. Action on CC to talk with GDMR and agrees on sensible aliases.

Action: CC/GDMR

Systems Hardware

Solaris 2.5 Project DWB reported that he has written a draft plan, this should be available to the Syssies in a day or so. DWB's notes from the meeting are now available on the Syssies' web page and in DWB's home directory.

Teaching/Research

Syssies Admin Module PAUL reported that he has written a draft syllabus but he is waiting for comments before making it more widely available.

10.00

Action: JTB/AJS/GDMR/JST/MORNA

3. Chairmans Business

There was none.

4. Routine Reports

Admin

Applications and User Environment

Latex JTB is in the process of writing a Latex 2e technote. CC, PAUL and JTB met to discuss the format for future technotes and there seems to be a problem with dvi and postscript files. EUCS are using PDF and they don't seem to have any problems. Action on JTB to look into PDF.

Action: JTB

System networking

Backups Action on IRO to arrange a meeting with GDMR, JENNY, LMB and MORNA to discuss the problems with backups. Action on IRO to report back at the next Syssies meeting.

Action: IRO

Management

CO/CSO Work profile JTB has compiled a list of all the syssies duties (except for Archie's). Jo will present the list before the next meeting.

Action: JTB

Systems - Hardware

Recording Hardware Information It was reported that a better system is required for recording hardware information ie. what hardware we have, where it has come from and who is going to maintain it. Action on PAUL to investigate.

Action: PAUL

Teaching

Research

AJS to talk to MIKEF about followup to actions arising from Research meeting and report back at the next Syssies' meeting.

Action: AJS

5. Any Other Business

6. Date of the Next Meeting

Thursday 22nd February, 11:00am Room 2509.

There being no other business, the meeting closed at 12.15pm.

Deferred Actions

22/2/96 Action on IRO to make the syssies' minutes available on-line. (Clarification required).

22/2/96 Action on AJS and RS to start looking at database technology (eg SQL).

22/2/96 Action on JST to report back on printer discussions with EUCS et al.

22/2/96 DWB to continue investigations re news service, in particular performance issues by speaking to EUCS and AI.

Syssies Progress Meeting

Thursday 22nd February

11.00 am Room 2511

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

   Admin (JENNY)

   Applications and User Environment (JTB)

   WWW (JTB)
   Security (GDMR)
   ML (JST)

   System networking (MORNA)

   Mail Agents and MIME support (PAUL)

   Managment (JHB)

   Project Planning (JTB)
   CO/CSO Work Profile (JTB)

   Systems - Hardware (DWB)

   Teaching/Research (AJS/PAUL)

GDMR 12.30
WB.

5. Items for Discussion

   Technical Strategy Document (PAUL)

6. Any Other Business
7. Date of Next Meeting

Minutes of the Syssies Progress Meeting
Thursday, 22nd February, 1996

Present: Doug Rogers, Rosemary Soutar, George Ross, Jenny Smith, Chris Cooke, Julian Turnbull, Irene Orr, Rainer Thonnes, Jo Blishen, Morna Findlay, Archie Howitt, Paul Anderson, Alastair Scobie, Lindsey Brown, John Butler (Chair), Tracy Combe (Secretary).

Apologies: David Baines

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Applications and User Environment

Latex JTB was to look into PDF for future technotes. LMB has ordered a copy of Acrobat so this action will be deferred until Acrobat arrives.

Action: JTB

Systems Hardware

LCFG Clearout GDMR will instigate a discussion re clearing out obsolete lcfg and host entries. He will report back at the next meeting. *Carried Forward.*

Action: GDMR

CS1 Printing Quotas JHB met with RAM to discuss CS1 printing quotas. They have still to decide on an amount.

Action: JHB

Recording Hardware Information PAUL will write a small project proposal and give it to JTB.

Action: PAUL

System Networking

Support for POP Service CC and GDMR have decided on sensible aliases. They will publish the list of names.

Action: CD/GDMR

Backups PAUL, GDMR, IRO, RWT and DWB will meet to discuss the problems with backups.

Action: PAUL/GDMR/IRO/RWT/DWB

Teaching/Research

Syssies Admin Module There will be a meeting on Friday 23rd February

to discuss the module. The paper will be published detailing what has been done so far.

Action: JTB/AJS/GDMR/JST/MORNA

3. Chairmans Business

There was none.

4. Routine Reports

Admin

Applications and User Environment

WWW RS and JTB have produced a new dcs home page. JTB reported that support was needed for HTML editors. JTB is trying to get hold of a copy of Hotmetal. Acrobat versions for Mac X windows are on order. JHB is chasing Acrobat for Unix.

Action: JTB/JHB

Security JHB has produced a draft note on security and JHB and GDMR have met to identify some of the issues. GDMR will be talking to the CSG group about the lack of security next Wednesday afternoon.

ML JST reported that STECK is reviving the ML Club so he will go along and find out what peoples needs are and report back. JST reported that a number of people want to see the new version of New Jersey ML but it's very hard to get it across before the connection goes down. STG has said that he wants the Polish version of ML for a new teaching requirement. Two RA's required CAML light but will maintian it themselves.

Action: JST

System networking

Mail Agents and MIME Support PAUL reported that there are problems with the mail agents due to a lack of MIME support. Action on DWB to take a look at it as soon as possible. Short term action should be taken while looking into longer term solutions. Last summers report should be updated.

Action: DWB

Management

Project Planning JTB reported that GORDON has written a departmental organisation document which will be presented at the next Departmental meeting. Action on JTB to make sure that GORDON's paper has been read before it is presented to the Department.

Action: JTB

CO/CSO Work Profile JTB distributed papers on this. Any comments should be passed to JTB.

Systems - Hardware

Teaching

Research

Items for discussion

PAUL reported that GDMR, PAUL and AJS have put together a technical strategy document which is available to view on the WWW. Two main points were raised:

1. The organisational problems that the likely increase in personal machines will cause;

2. What the Department want with regard to security and do they realise the security measures that we have at the moment.

5. Any Other Business

6. Date of the Next Meeting

Thursday 7th March, 11:00am Room 2509.

There being no other business, the meeting closed at 12.05pm

Deferred Actions

7/3/96 DWB to continue investigation re new service, in particular performance issues by speaking to EUCS and AI.

21/3/96 Action on RS and AJS to continue looking at database technology and report back.

21/3/96 Action on JST report back on printer discussion with EUCS et al.

Syssies Progress Meeting

Thursday 7th March 1996

11.00 am Room 2511

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

Admin	(JENNY)
Applications and User Environment	(JTB)
WWW: Systems Page (jtb)	
System networking	(MORNA)
Managment	(JHB)
Project Planning (jtb)	
Systems - Hardware	(DWB)
Teaching/Research	(AJS/PAUL)

5. Items for Discussion

   CO Work Organisation (jhb/jtb)

6. Any Other Business
7. Date of Next Meeting

Improved EMACS modes for SML-like languages

Stephen Gilmore

18th March 1996

1 Introduction

We have several versions of the Emacs editor and several SML and SML-like languages. There are several different versions of the SML-mode for Emacs. One of these was extended by Stephen Gilmore to provide information about the Standard ML initial basis. The status of the initial basis has now changed because a new Standard ML compiler, Moscow ML, has implemented a new version of the basis and other compilers will follow suit, Standard ML of New Jersey among them. In addition to this, an implementation of Extended ML is now available for the first time. Now seems like a suitable time to revise and rationalise Emacs mode support for SML-like languages to reflect these new developments and bring together different versions of the SML-modes.

2 Terminology

Emacs, Standard ML, Extended ML, ELisp programming, Emacs sub-process.

3 Definition of tasks/service to be provided

The task to be undertaken is to develop an improved SML-mode to replace the existing one. This is largely a design and programming task which will involve knowledge of Emacs Lisp (for programming) and Standard ML (for problem definition). The long-term cost of this work will be minimal, simply to fix problems which are caused by installing new versions of Emacs when these problems occur.

4 Resources required

- A Standard ML/Extended ML expert should act as consultant and tester. A software developer should design and develop the code.
- This task will require half of one man-month of effort perhaps spread over a vacation period. The long term maintenance cost is very low and can be adopted by the Emacs maintainer.

- Emacs Lisp programming skills are needed.
- Presently available departmental resources will be adequate.

5 Work plan

Work on the project could proceed over the summer.

6 Timescales and Milestones

The deadline is the beginning of the next academic year.

7 Monitoring and Reporting Procedures

One report at the end of the project will be sufficient.

8 Known problems and Further work

None.

A Rationale

Standard ML is used in second year, third year and MSc teaching and Emacs is almost universally used as the text editor for any programming work. Our students tend to use it relatively infrequently and then to forget some aspects of the syntax (for example **and** versus **andalso**) and lexical matters such as string escape conventions. A small amount of assistance from the Emacs editor in marking up the program source and providing additional help menus would make some aspects of teaching SML and associated lab demonstrating easier.

Syssies Progress Meeting

Thursday 21st March 1996

11.00 am Room 2511

AGENDA

1. Minutes of Previous Meeting
2. Matters Arising
3. Chairman's Business
4. Routine Reports:

   Admin (JENNY)

   Server Root Passwords (ajs)

   Applications and User Environment (JTB)

   WWW: Systems Page (jtb) ; Latex

   System networking (????)

   Managment (JHB)

   Systems - Hardware (DWB)

   Solaris 2.5 Project Progress Report (dwb)

   Teaching/Research (AJS/PAUL)

   Equipment purchase

   Colour laser.

5. Items for Discussion
6. Any Other Business
7. Date of Next Meeting

Minutes of the Syssies Progress Meeting
Thursday, 21st March 1996

Present: Doug Rogers, Rosemary Soutar, George Ross, Jenny Smith, David Baines, Chris Cooke, Julian Turnbull, Irene Orr, Rainer Thonnes, Jo Blishen, Archie Howitt, Lindsey Brown, Paul Anderson, Alastair Scobie, John Butler (Chair), Tracy Combe (Secretary).

1. Minutes of the Previous Meeting

The minutes of the previous meeting have not been generated by MIKEF.

2. Matters Arising

Applications and User Environment

Security GDMR will write a paper and present it at a pizza lunch. Action on AJS to speak to MIKEF about arranging a pizza lunch.

Action: AJS

ML JST has spoken to STG about the Polish version of ML and he has said that it has features that no other version of ML has. We need to find space for 5MB of binaries.

Systems Hardware

CS1 Printing Quotas JHB and RAM have agreed that the CS1 printing quotas should be set at 100.

Recording Hardware Information. PAUL will write a small project proposal and give it to JTB. *(Carried Forward).*

Action: PAUL

System Networking

Support for POP Service GDMR reported that the SMTP still needs to be withdrawn. This will be done on Monday 25th March.

Action: GDMR

Teaching/Research

Syssies Admin Module This has been forwarded to Syllabus. JTB will chase it up and find out what is happening.

Action: JTB

Deferred Actions

DWB reported that AI has switched over to the EUCS news server easily as they only had a small load. DWB has spoken to Scott but he is still waiting on feedback. DWB will report back.

Action: DWB

A group of COs had a meeting with PT to discuss database technology. It was decided that they would stick with the SQL server but they are still investigating clients. The new course admin database won't be up and running until the 1997/98 session.

JST reported on slow progress with the EUCS investigations into new printing technologies. Initial impressions are that LPRng is the way to go. JST will report back in 6 weeks.

3. Chairmans Business

There was none.

4. Routine Reports

Admin

Server Root Passwords AJS reported that there are too many server root passwords and not everyone knows them. We decided to cut down the number of passwords and JENNY will create a depository for safekeeping. JENNY will mail users that haven't changed their passwords recently and ask them to do so. JENNY will generate a list of aged accounts and give a copy to JHB. GDMR will think about a wrapper on passwd and report back.

Action: JENNY/GDMR

Applications and User Environment

WWW: Systems Page JTB reported that she has revamped the systems page. We need to look at documents in the home page that should be distributed to a wider audience (JTB will send details around) and also what the mechanism is for distributing things ins a restricted way. JTB to investigate.

Action: JTB

LaTeX2e JTB will produce a Web page on solutions to problem that may arise when LaTeX2e is made the default on Monday. JTB will mail the CS4 students to remind them when they come back.

Action: JTB

System networking

Management

Systems - Hardware

Solaris 2.5 Project Progress Report DWB reported that he has set up 2 test machines (Rabbit and Tiree). When he gets back from his holidays DWB will set up a meeting for anyone who is interested. DWB will look at Solaris 2.6 as soon as he's finished with Solaris 2.5.

Action: DWB

Teaching/Research

5. Any Other Business

Purchasing PAUL reported that at the last LFCS equipment committee meeting there was discussions about the department buying a colour laser printer. PAUL will discuss this with NPT.

Action: PAUL

Action on JHB to convene a panel to look at the years equipment expenditure.

Action: JHB

Machine Halls AJS reported that the machine halls were in a terrible mess. Action on everyone to tidy it up tomorrow afternoon (Friday 22nd March).

Action: ALL

6. Date of the Next Meeting

Thursday 4th April, 11:00am Room 2509.

There being no other business, the meeting closed at 12.20pm

Deferred Actions

4/4/96 GDMR to report back on passwd wrapper.

18/4/96 Action on DWB to report back on Mail Agents and MIME support.

18/4/96 DWB to report on EUCS news server transition.

18/4/96 Action on RS and AJS to continue looking at database technology and report back.

2/5/96 JST to report on printing technology investigations.

Pizza Lunch: Departmental System Security

George D M Ross
gdmr@dcs.ed.ac.uk

Draft: March 25, 1996

1 Current (in)security

The security "policies" that are in place for the Department's computing resources have been formulated in an *ad hoc* manner over a number of years, with the mechanisms adopted being reasonably unobtrusive though adequate for the time. However, circumstances have changed: technology has moved on, machines are now smaller, lighter and cheaper, and much more widely interconnected, and system and software management has necessarily become less centralised. As a result, the barriers of the past are now easily circumvented. And this trend looks set to continue.

The security provided by the current mechanisms can best be summarised as "not very much at the moment, and getting less all the time":

- anyone with their own portable machine and physical access to the Department's ethernets effectively has unrestricted access to almost all of the the UNIX computing resources, and the user accounts, files and mail held on them—very little effort is involved;
- any one of 71 "package maintainers"[1] likewise has unrestricted access, only this time from anywhere on the entire Internet; and of course anyone who compromises any one of these also has unrestricted access;
- multi-user machines are fundamentally less secure than single-user ones;
- the non-UNIX machines are, unfortunately, easy to leave insecure by mistake, and in any case can be attacked from the UNIX-based infrastructure servers;
- there is no set policy on peripatetic users—numerous holes have been punched in our security perimeter to accommodate their various wishes;
- e-mail is well known to be insecure, and though there are some solutions around for this there is very little point in deploying them while the other loopholes exist.

Fortunately our users have so far been honest. Or at least, the ones that haven't been have generally been discreet about it.

Of course, the system managers do try to keep their machines secure as best they can. Patches are applied, and tools installed whenever it is possible to do so unobtrusively. However, it is often unclear relatively how important security is. Hence users are confused, support staff lack guidance, and inconsistency results.

2 Why involve the whole Department?

It may be that the *status quo* is acceptable to the Department, and that position may emerge from the pizza lunch or subsequent discussions. However, it appears *prima facie* that the current

[1] 15 CO, 21 academic, 12 RA, 17 PG, 4 secretaries, 1 CS4 student, and 1 EUCS.

acceptance of the present security measures is as much due to unawareness of how weak they now are as it is to any particular desire for weak security.

Security is a trade-off, between:

- the degree of security required—what level of assurance do we need that resources and information are available only to those people who should have access;
- the cost—not just money for equipment, but also support, documentation, and training;
- ease and convenience of use.

What may be suitable for one part of the Department may not be required or desirable for another part, of course. And inevitably different people will place different emphases on the various factors involved. In any case, developments within and without the Department will continue to erode the existing measures' effectiveness.

3 What do we need to decide?

1. The principle of establishing a policy. Whether or not this policy is the current weak one or some other different one, the fact that it is not written down anywhere causes problems both for users who might want to know whether any given action is acceptable or not, and for support staff who require guidance on maintaining existing systems and setting up new ones.
2. In general terms, whether and how the Department's activities might be partitioned up, and the kinds of things that might or might not be acceptable for each. The actual policy detail would probably be better left to a security-aware individual or working party, consulting widely throughout the Department and reporting back at a later date.
3. The principle of allocating resources to security:
   - to define policy in detail;
   - to evaluate alternative implementations of the defined policy;
   - for the deployment of the selected implementation mechanisms;
   - for documentation and training;
   - for auditing and enforcement.

   Unfortunately, security, like insurance, does not come for free.

Minutes of the Syssies Progress Meeting
Thursday, 18th April 1996

Present: Rosemary Soutar, George Ross, Jenny Smith, David Baines, Chris Cooke, Julian Turnbull, Irene Orr, Rainer Thonnes, Jo Blishen, Lindsey Brown, Alastair Scobie, John Butler (Chair), Tracy Combe (Secretary).

Apologies: Archie Howitt, Paul Anderson, Doug Rogers

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Admin

Server Root Passwords JENNY has produced a list of aged accounts and has given a copy to JHB. JENNY will do the initial passes on the data.

Action: JENNY

Applications and User Environment

Security Action on AJS to chase up MIKEF re: GDMR presenting a security paper at a pizza lunch.

Action: AJS

LaTeX2e JTB will make LaTeX2e the default on Friday 19th April.

Action: JTB

Systems Hardware

Recording Hardware Information PAUL will write a small project proposal and give it to JTB. *(Carried Forward)*

Action: PAUL

Solaris 2.5 Project Progress Report DWB will mail the syssies to arrange a meeting next week for all those who are interested.

Action: DWB

Teaching/Research

Syssies Admin Module JTB will chase RNI to find out what is happening with the Syssies module and who is on the syllabus working party.

Action: JTB

Any Other Business

Syssies Junk LMB will mail staff the list of junk equipment and find out if anyone wants anything before it is auctioned off.

Action: LMB

Purchasing

Action on JHB to speak to NPT about this years equipment expenditure.

Action: JHB

GDMR would like QI to move off the DNS machine. The meeting proposed moving QI onto the external machine "Ramna". *(Carried Forward)*

Action: DDR

Deferred Actions

DWB is still looking at Mail Agents. He will speak to Paul Murphy about PINE when his exams have finished. It was felt that it might be better to document what is possible now.

DWB will get clarification from EUCS that they can support our volume of news

Action: DWB

RS has been looking at Power Builder as a database application builder for the departmental databases. This will be very costly (around £10,000). Further investigation is needed. It might be cheaper to build the applications on nust one platform and run in emulators on the other platforms.

3. Chairmans Business

There was none.

4. Routine Reports

5. Any Other Business

6. Date of the Next Meeting

Thursday 2nd May, 11:00am Room 2509.

There being no other business, the meeting closed at 12.00pm

Deferred Actions

2/5/96	GDMR to report back on passwd wrapper
2/5/96	JST to report on printing technology investigation
2/5/96	PAUL to report back on the progress of a new colour printer
2/5/96	Action on DWB to investigate the problems with mail loops
16/5/96	JTB to report back on the Systems WWW page
16/5/96	RS and AJS to continue looking at database technology and report back

Syssies Progress Meeting

Thursday 2nd May

11.00 am Room 2509

AGENDA

1. **Minutes of Previous Meeting**
2. **Matters Arising**

   — None.

3. **Agenda Items**

   Databases: MIS Academic Services Project (RS)

4. **Deferred Actions**

   GDMR to report back on passwd wrapper

   JST to report on printing technology investigation

   PAUL to report back on the progress of a new colour printer

   DWB to investigate the problems with mail loops

5. **Any Other Business**

   Sys admin module

   Syssies newsletter.

6. **Date of Next Meeting**

   28/5.

Mac maint h/w.

Scotty/Arun

Simon Marion

Minutes of the Syssies Progress Meeting

Thursday, 2nd May 1996

Present: most folk
Apologies: some folk

1. Minutes of the Previous Meeting

The minutes of the previous meeting were read and approved.

2. Matters Arising

Security

Action on AJS to chase up MIKEF re: GDMR presenting a security paper at a pizza lunch. *(carried forward)*

Action: AJS

LaTeX2e

LaTeX2e has been made the default LaTeX. It was suggested that JTB should report any problems with the switch at the next meeting.

Action: JTB

Recording Hardware Information

PAUL has completed the project proposal. The meeting was unclear as to where the proposal should now go. AJS, JHB and PAUL voiced dissatisfaction with the clarity of the new management mechanisms. They shall discuss this with MIKEF.

Action: PAUL, JHB & AJS

Solaris 2.5 project

DWB reported that a constructive 2.5 project review meeting had recently been held and that it should be possible for syssies machines to be upgraded to 2.5 within a month. PAUL volunteered mousa to act as an experimental 2.5 xterm server.

Syssies Admin module

PAUL reported that DJR (chair of the syllabus working party) had spoken to him about the the proposed syssies admin module. The working party's reaction had been favourable. They had asked for a few lectures and sample exam papers to be fleshed out. They were aware of our concerns over the resourcing of this module.

Action: PAUL

Equipment Junk

Lindsey has mailed the proposed list of equipment junk to syssies for comment which she now eagerly awaits.

Action: ALL

JHB will arrange a "car bootsale" for the condemned kit.

Action: JHB

Purchasing

JHB reported that he has discussed with NPT the mechanisms for deciding on next year's equipment expenditure. Like last year, a small group with representatives from each departmental group will collate and consider proposals for decision by the department. JHB/NPT will form this group.

Action: JHB/NPT

QI Move

GDMR would like QI to move off the DNS machine. The meeting proposed moving QI onto the external machine ramna. *(carried forward)*

Action: DWB

3. Agenda Items

MIS Academic Services Project

RS reported that she had attended a MIS presentation on the academic services project. This had raised more questions than it had answered so the meeting decided that a technical swat team (RS, AJS, PAUL) be dispatched to MIS to quiz the MIS technical staff. JHB volunteered to determine who were the appropriate technical staff in MIS to interrogate.

Action: JHB, RS
PAUL & AJS

4. Deferred Actions

Passwd wrapper (GDMR)

GDMR reported that he has been researching various password wrappers but has yet to come to a decision. He will continue his research and report back in 4 weeks.

Print spooling technologies (JST)

JST reported that progress on this has been slow recently as Paul Haldane (EUCS) has been otherwise busy. Apparently Paul has received considerable response to his poll of system managers.

Colour laser printer (PAUL)

PAUL reported that JST and himself had concluded that the HP ColourJet was best for our needs. A bid will be made to purchase one out of next year's money.

Mail loops (DWB)

DWB reported that he has not had time to investigate solutions to this. He has some quick ideas that should alleviate the problem and will write a project proposal for a project to produce a long term solution.

5. Any Other Business

Newsletter

CC reminded the meeting that it was newsletter time again. He will be visiting each syssie to discuss how they might contribute. A lollipop will be awarded to the first person to contribute an item.

Action: ALL

Deferred Actions

16/5/96	JTB to report back on the systems WWW page
16/5/96	RS and AJS to continue looking at database technology and report back
30/5/96	GDMR report back on password wrappers
13/6/96	JST to report on print spooling technology investigations
??/8/96	DWB to report back on mail loop solutions

Syssies Progress Meeting

Thursday 16th May, 1996

11.00 am Room 2509

AGENDA

1. **Minutes of Previous Meeting**
2. **Matters Arising**
3. **Agenda Items**

   Student root access to machines for projects (PAUL)

   Macintosh backup server. (PAUL)

4. **Deferred Actions**

   JTB to report back on the Systems WWW page

   RS and AJS to continue looking at database technology and report back

5. **Any Other Business**
6. **Date of Next Meeting**

Harvest

New Schools Server

Schools Project

JTB.

Briefing Note: Departmental System Security

George D M Ross
gdmr@dcs.ed.ac.uk

23rd May, 1996

This is a Briefing Note on system security in the Computer Science Department, prepared for the "computing facilities development" pizza lunch to be held on Friday, 24th May 1996.

System security is about the prevention and detection of unauthorised access to resources, such as files, mail, and machines. It is about data and message privacy and authenticity. It is about the prevention of tampering and forgery. Security threats can come from both outside the Department[1] and from inside, with the latter being much harder to detect and to protect against.

1 Current (in)security

The security "policies" that are currently in place for the Department's computing resources have been formulated in an *ad hoc* manner over a number of years, with the mechanisms adopted being unobtrusive while adequate for the time. However, circumstances have changed: technology has moved on, machines are smaller, lighter and cheaper, and much more widely interconnected, and system and software management has necessarily become less centralised. As a result, the barriers of the past are now very easily circumvented. And this trend looks set to continue.

The security provided by the current mechanisms can best be summarised as "not very much at the moment, and getting less all the time":

- anyone with their own portable machine and physical access to the Department's ethernets effectively has unrestricted access to almost all of the the UNIX computing resources, and the user accounts, files and mail held on them—very little effort is involved;
- any one of 71 "package maintainers"[2] likewise has unrestricted access, only this time from anywhere on the entire Internet; and of course anyone who compromises any one of these accounts also has unrestricted access;
- multi-user machines are fundamentally less secure than single-user ones, and X-terminals are fundamentally less secure than workstations;
- the non-UNIX machines, as currently configured, are, unfortunately, easy to leave insecure by mistake, and in any case can be attacked from the UNIX-based infrastructure servers;
- there is no policy on remote and peripatetic users—numerous holes have been punched in our security perimeter to accommodate their various wishes;
- e-mail is well known to be insecure, and though there are some solutions around for this there is little point in deploying them while the other loopholes exist.

Fortunately our users have so far been honest. Or at least, the ones that haven't been have generally been discreet about it.

Of course, the system managers do try to keep the machines secure, provided that this can be done without materially affecting the users' view of the service. Patches are applied, and tools

[1] System logs show several suspicious connections from remote sites being rejected daily.
[2] 15 CO, 21 academic, 12 research, 17 PG, 4 secretaries, 1 CS4 student, and 1 EUCS.

installed whenever it is possible to do so unobtrusively. However, it is unclear relatively how important security is, and so users are confused, support staff lack guidance, and inconsistency results.

2 Why involve the whole Department?

The security measures which have been put in place up to now have been both reasonably unobtrusive and fairly cheap to implement. Any future enhancements will necessarily require visible changes in the service, or non-trivial resourcing, or both.

System security is a three-way trade-off, between:

- the degree of security required—what level of assurance do we need that resources and information are accessible only to those people who should have access;
- the cost—not just money for equipment, but also investigation and implementation, support, documentation, and training;
- ease and convenience of use—if security mechanisms are too awkward to use in practice then users will simply adopt insecure but more convenient alternatives instead.

It may be that the *status quo* is acceptable to the Department, and that position may emerge from the pizza lunch or subsequent discussions. However, it appears *prima facie* that the current acceptance of the present security measures is as much due to unawareness of how weak they now are as it is to any particular desire for weak security. And developments within and without the Department will continue to erode the existing measures' effectiveness.

What is appropriate for one part of the Department may not be required or desirable for another part, of course. And inevitably different people will place different emphases on the various factors involved.

Unfortunately, security, like insurance, does not come for free, and its benefits are similarly intangible.

3 What does the Department need to agree?

0. Whether system security is important. (Presumably it is, but at present the relative degree of importance is hopelessly unclear.)

1. The principle of establishing a written policy. Whether or not this policy is the current weak one or some other different one, and whether it is general or detailed, the fact that it is not written down anywhere causes problems both for users who might want to know whether any given action is acceptable or not, and for support staff who require guidance on maintaining existing systems and setting up new ones.

2. A mechanism whereby the Department's system security policy can be written down and kept up-to-date; and a mechanism by which the effectivness of the policy can be audited and problems addressed.

3. The principle of investing resources in security:
   - to define a written policy;
   - to evaluate alternative implementations of this policy;
   - for the deployment of the selected implementation mechanisms;
   - for documentation and training;
   - for auditing and enforcement.

Development of Computing Facilities for the Computer Science Department

by Paul Anderson <paul@dcs.ed.ac.uk>
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and Alastair Scobie <ajs@dcs.ed.ac.uk>

Department of Computer Science
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1 Introduction

Over the next few years, we expect the computing facilities within the department to evolve in a number of directions. This paper attempts to predict some of the likely trends and present them for discussion. It also identifies areas which may require significant new resources.

2 Summary

Some of the trends outlined in the following sections are mainly concerned with changes in technology and the way in which the infrastructure is provided. We do not expect these developments to substantially change the user's view of the core services.

However, some of the developments could significantly affect the facilities and support directly available to end users. The following points probably represent the key issues:

- In the past, the department has concentrated largely on one "standard" system, but it seems likely that more diversity will be inevitable in the future. This diversity may come from both additional Unix platforms as well as single-user machines running completely different operating systems, which may well lead to a less tightly integrated system.
- Clearly, the high level of detailed support provided in the past for a single system can not be extended across a much wider range of platforms. Many other organizations address this problem by devolving much of the support work to end-users, but this can be very inefficient and requires significant additional effort from the users themselves.
- There is no defined policy and no mechanism for enforcing the security of the current systems. This means that the practical level of security is often considerably less than users might expect. We believe that this is no longer acceptable for many applications, and a clear policy needs to be developed which provides an appropriate balance between ease of use, cost, and level of security.
- Development of new directions may require significant resources and some mechanism is needed to identify existing areas from which these resources can transferred.

3 Single-user Machines

3.1 Trends

We anticipate an increasing proportion of single-user machines such as Macintoshes and/or PCs. Initially, this will probably be mainly for personal use and specialized teaching applications, but later, it may also include student laboratories. This is largely because:

- Such systems often provide better facilities for the administrative tasks, including document processing and mail, which are the major applications for many users.
- The University administration and central facilities are moving towards this type of machine, as are many other organizations, and compatibility with these will be important.
- Portable machines are becoming increasingly popular as the power and connectivity improves.
- The number of students and staff owning machines at home is likely to increase and compatibility with these is also important.
- Single-user are more cost-effective for many applications.

Although the development environments on these machines are often more attractive than the equivalent Unix environments, only PCs running NT (or Linux) would currently be considered suitable for general student programming until the other operating system(s) develop more robust memory protection. However, we would not be happy to commit, at this stage, to developing one platform (Macintosh *or* PC) at the expense of the other, since both have distinct advantages and disadvantages; at present, Macintoshes appear to be establishing themselves in the department as portable and administrative machines, while PC's are being used more for programming and student work.

3.2 Configuration and Maintenance Problems

Unix is well-suited to large-scale remote management and several man years of effort within the department have been devoted to producing a system which is very efficient to manage. Managing single-user machines is extremely difficult and usually very inefficient[1]. It is inconceivable that we could manage significant numbers of single-user machines with the existing man-power unless new mechanisms are developed to improve efficiency in a similar way to the existing systems.

Many organizations provide very little co-ordinated management of single-user machines leaving responsibility with the end-user. However, this tends to be extremely inefficient and an appropriate balance needs to be found between user- and central responsibility.

Some effort will also be required to integrate these machines into the infrastructure and to develop appropriate ways of working; for example, user files held on a local personal machine will no longer be available to other network users.

4 Workstations and Compute Servers

4.1 A Wider Range of Platforms

Although single-user machines might be appropriate for an increasing number of users, there will still be a heavy demand for workstation-class machines. These will be necessary for users with heavy computing requirements or specialist applications, such as graphics. In many cases, Suns will be perfectly suitable, but they will not be the ideal machines for all applications and we would like to be able to provide a wider range of Unix workstations for specialist needs. This might lead to smaller numbers of more highly configured machines, and it is not clear whether it will be appropriate to site these machines in individual offices (for example, the existing Silicon Graphics machine).

A number of the configuration and support problems associated with single-user machines are also relevant to diverse Unix platforms and it is likely that these could only be supported by devolving some support functions in a similar way.

4.2 X Terminals

X terminals have provided cost effective desktop facilities in the past, but we expect their numbers to reduce in the future. There are a number of reasons for this, including:

- Workstations (or single-user machines) are more flexible and likely to adapt to new requirements (for example, multi-media and video-conferencing).
- Some security problems are impossible to solve adequately with X terminals.
- The unpredictable loading of the network and servers is not always acceptable.

It is possible that X terminals could be used to provide supplementary public facilities for news and mail processing freeing more powerful machines for general computing.

4.3 EUCS

Previously, the facilities offered by the central Computing Services have been rather different from those required locally within the department. However, they are now very similar and it should be possible to take more advantage of this. More student access from central laboratories (of single-user machines or workstations), and more use of central compute power are two possibilities.

5 Infrastructure Services

5.1 Core services

The current departmental infrastructure provides common facilities such as Mail, News and Internet services based on distributed Sun servers. We believe that Unix-based Suns will continue to be the best platform for this type of application and we do not envisage any major changes in the way in

[1] The paper `http://www.dcs.ed.ac.uk/home/paul/Internal/Mac_Support.dvi` describes some of the problems involved in the management of significant numbers of macintosh machines

which the present services are implemented; Sun Solaris is comparatively easy to manage, and it is frequently the first platform to which new software is ported.

However, some infrastructure services will need to adapt to the requirements of more single-user machines; for example, remote backups, mail, and file sharing. There is also a possibility that requirements may appear for completely new applications which will have a significant effect on the way in which the infrastructure is provided. For example, development of video-conferencing would have significant implications for the technology and topology of our networks.

5.2 EUCS

Some of the services which we offer at a department level are also becoming sufficiently commonplace that we might want to consider transferring the responsibility to the Computing Services. This would reduce the load on our equipment and support staff. Initially, News is the most likely candidate, but mail and other services could also be considered in the future.

6 Remote Access

We anticipate an increase in the amount of remote access to departmental computing facilities. This will come from portables and home machines, as well as increased student use of central computing laboratories. This implies a change in the balance between servers and workstations as well as possible improvements to the network facilities. It may also involve investigation of new technologies such as ISDN and cable networks.

Remote access also has significant security implications and remote-users may not be able to expect the same access rights, or even operating procedures, as local users.

7 Software

Previously, much of the software used within the department as been built from source code and adapted as necessary to fit the local requirements. In many (but not all) cases, it is now possible to move towards more standard software which would be more compatible with other sites and require less maintenance. However, especially with single-user machines, there is a trend away from supplying source code and towards binary-only distributions. This means that the software might not be so well integrated as the current systems and additional work may be generated in some cases to overcome these problems. Software costs and management of software licensing will also need much more attention than in the past.

8 Security

8.1 Policy

An "acceptable" level of security represents a trade-off between convenience, cost and level of security. It is impossible to implement a security solution without a clear statement of policy which defines the relative importance of these factors (in practice, different levels of security might be appropriate for different areas of departmental activity).

At present, the department has no security policy and, as a consequence, users cannot be sure what level of security is actually being provided for their data. A clear policy is required, together with some mechanism for enforcing that policy, particularly where this depends on manual procedures, or management of systems that has been delegated to end users.

Current security arrangements are appropriate for the original departmental network used for academic purposes and connected to a comparatively small number of similar systems. This is unlikely to remain acceptable in the future for a large, highly distributed system which is central to the running of the department.

8.2 Implementation

Implementation of a security solution across a distributed heterogeneous networks is extremely difficult and is not adequately addressed by system vendors[2]. However, a complete solution must cover both technical issues and associated manual procedures. Some possible examples include:

- "Firewalls" between groups of machines to provide clusters of machines which are more secure than other machines.
- Provision of data encryption software.
- Documentation and training in security issues.
- Authentication schemes such as Kerberos.
- Manual procedures for handling paper records.
- Smart cards.

[2]The papers `http://www.dcs.ed.ac.uk/home/paul/Internal/Mac_Security.dvi` and `/home/gdmr/Progress/docs/sys-security.dvi` describe some of the issues in more detail

Course Database Project Plan

Rosemary Soutar

24 May 1996

1 Introduction

Each year of the CS course currently has a separate database to hold student details, practical and exam marks. Each uses a different database structure and technology: the data held is different and the database applications are different. As a result, student details can't roll over for subsequent years. Course coordinators rely on previous course coordinators' work which can cause problems at handover (lack of suitable equipment, learning overhead) and, in some cases, course coordinators are duplicating support effort. Secretaries also have to learn different database technologies as they become involved with different courses.

This project aims to unify the database technology and structure, reducing secretarial and course organiser overhead. If possible, it will incorporate data from the MIS database (Academic Services Project), rather than duplicating it.

The Department has a requirement to do cohort analysis for QA purposes which cannot be satisfied under the present scheme, although this may be possible through MIS in the future.

2 Terminology

3 Definition of tasks/services to be provided

This project is to provide one supported database technology and course database for all years. The database will hold student practical and exam marks, student details, any other information required by course coordinators and examiners and may support cohort analysis. It will be the definitive source of student information within the department (replacing QI for student info).

The database will have a common structure across all years and common input, output and update mechanisms. It may be possible for users to add output formats as required. These mechanisms will be implemented on the platform(s) most suited to the department's requirements, subject to cost restraints.

Security will be appropriate to the level of user accessing the database.

3.1 Features of a course database

The database will support the following operations -

- Batch data entry for secretaries.
- Update access for secretaries and possibly course organisers & tutors (or via paper to secretary, mail interface or web interface?).
- Output access for all groups. (ability to format output?)
- Integration with MIS database: incorporating data from MIS, updating MIS data?
- Cohort analysis ? (probably MIS)

4 Work plan

4.1 Technical feasibility study

- What platform(s) will the database applications run on? (i.e. what machines will secretaries and course organisers have on their desks in future? what can we afford?)
- Evaluate RDBMS products
- Evaluate database design tools
- Evaluate database application development tools.
- Evaluate report writers.
- Check out database client-server connectivity across plaforms.
- How do we do batch input (directly?) from the MIS database?
- Will we be allowed access to the MIS database using our tools?

4.2 Requirements feasibility study

The database needs to store practical marks, exam marks, tutor groups, modules being taken (half courses for CS1 and CS2) as well as student details.

- Consult with course organisers about their requirements.
- Consult with secretaries about batch entry.
- What student details can we get from MIS?
- Do we need to support cohort analysis? (Will this be provided by MIS?)

  - m/c (on designer's desk) for database application development
  - m/cs on secretaries desks for running applications
  - m/cs on course organisers desks for running applications (or general access m/cs)
- Software
  - client/server RDBMS
  - database design tool
  - database application development tool
  - report writer
- People
  - PC server support: dedicated PC and client/server RDBMS (ajs)
  - Database designer: design database and develop applications (rs)
  - Database design technical support (pt)
  - Consultation with secretaries and course organisers for application development (rs)
  - maintenance

6 Timescales and deadlines

- Technical feasibility study - 6 weeks; technology decided by summer 1996.
- Requirements feasibility study - 3 weeks.
- Production - database design implemented by October 1996.? Application implemented by October 1997.?

7 Monitoring and Reporting Procedures

- Tracking every month.
- Project group meetings (as necessary).
- Progress reviews produced by project leader.

8 Known problems and Further work

- Investigate Web interface to database
- Web page generation

4.3 Production

- Set up database server and clients
- Design database structure
- Set up database design tool
- Implement database structure
- Set up database application development tool
- Set up report writer
- Design application
  - input details of courses (include labs & tutorials),
  - batch input of student details (in conjunction with 'new user' process)
  - updating student details
  - batch input of practical, class & exam marks
  - updating marks
  - exporting/importing student details for subsequent year
- Design reports
  - student details
  - marks lists
  - final exam lists
  - no DP letters
- Install application for relevant users

4.4 Maintenance

- Maintain server
- Maintain database design
- Maintain application

5 Resources

- Hardware
  - dedicated PC for database server
  - PC (on designer's desk) for database design

- New user accounts
- Incorporate QI

A Rationale

Access Programme for Local Schools

Michael Fourman Stephen Gilmore

Draft of May 29, 1996

1 Introduction

This is an proposal for a new approach to liaison with local schools, based around access to our Appleton Tower Labs and the internet. The aims of the programme are two-fold. First, this is an efficient, and we hope effective, way to foster public understanding of science. Second, it will increase awareness of Informatics degree programmes, among pupils, parents, and teachers, including trainee teachers who will also be eligible to participate in the Informatics Access Programme.

To get it off the ground for the next academic year, we plan to hold the initial meeting (described below) later this term — around the end of the examination period for highers and A-levels.

2 Terminology

3 Definition of tasks/service to be provided

Workshops for teachers A lunch-time workshop for teachers held at Appleton Tower once each term.

Workshops for pupils A series of half-day workshops for schoolchildren at Appleton Tower during August and September.

Access We will provide affiliated schools with dialup PPP access, an e-mail address, and 10Mbytes per school of disc storage, which can be used for project work or for maintaining pages on a dedicated WWW server.

Course attendance We hope to allow a limited number of teachers to sit in on appropriate courses (eg CL1 HC1 AI1).

4 Resources required

Roles

Liaison with schools	Recruitment of schools, workshop bookings, and related administration.
Academic Director	Formulation of workshop programme
Systems Development	Initial implementation of Schools Access
Systems Support	Maintenance of Schools Access
Workshop Coordinator	Day-to-day coordination of workshops in August/September
Workshop Delivery	Staff, PG and RA effort in delivery of workshops.

Effort

Liaison with schools	This will be provided by Isobel Stevenson (Schools Liaison).
Academic Director	STG
Systems Development	PAUL
Systems Support	We will not provide direct support to Schools—this will be provided by the Education Department's IT Support Unit for Schools
Workshop Coordinator	Half person-month (during August & September, part-time).
Workshop Delivery	Staff, PG and RA effort in delivery of workshops.

Skills What skills will be needed?

Hardware Total cost: £3330 We have made an application to the Development Trust for a Small Project Grant to cover hardware costs.

- Two dedicated telephone lines. £600
- Two telephone modems. £330
- Serial line equipment. £300
- Reserved maintained central disk space. £2000
- Backup and distribution media. £100

Licence Fees JANET licence £200 per 5 schools.

5 Work plan

Develop infrastructure. Install comms hardware. Initial meeting. Workshop Programme.

6 Timescales and Milestones

Deadlines, intermediate goals.

7 Monitoring and Reporting Procedures

Each project should decide on appropriate reporting methods - e.g. publishing weekly/monthly status reports, reporting to a committee/individual, etc.

8 Known problems and Further work

It may not be possible to allow teachers to attend courses without paying course fees.

A Rationale

By comparison with our peer instutions, those excellent in teaching and research, we have poor entry standards. We have had great difficulty in engaging the interest of school teachers and pupils. We believe that the programme outlined here could be set up at little cost – we could do this in place of some of our present liaison activities.

Minutes of the Syssies Progress Meeting

Thursday, 30 May 1996

Present: Jenny, RWT, LMB, JTB, DDR, CC, AJS, DWB, RS, GDMR, JST

1 "Seriously Chocolatey" Cake

Thanks Jo!

2 Minutes of Last Meeting

OK.

3 Matters Arising

Solaris 2.5

PAUL will mail round information about longer term Solaris developments when he gets it from Laurence Crolla.

Action - PAUL

Junk

JHB is still to organise a virtual jumble sale for our spare hardware bits and pieces.

Action - JHB

Perhaps we should mention our junk at the new Faculty CO Meeting? AJS will talk to JHB about it.

Action - AJS

Purchasing

The first purchasing meeting has met. We can't afford to replace 36 3/80s. There will be another meeting in a few days; AJS would like all comments and suggestions on possible purchases (for maintaining the current level of service - no new facilities) as soon as possible, please.

Action - ALL SYSTEM MANAGERS

QI Move from DNS Host

Carried forward.

Action - DWB

MIS Databases

RS has spoken to various members of the academic staff about PCs and the new student admin database. Directors of Studies generally want access to the database, but not many people want a personal PC just for this. The provision in a public area of a few PCs equipped with the student admin database software seems acceptable to most people.

RS reported that a test release of the student admin database application is due out on 6 June. RS will speak to Sandy Thomson about it.

Action - RS

RS told us that MIC has agreed to take part in a test of the student admin database. RS will report back to us on how MIC got on.

Action - RS

AJS will look into providing MIC with a suitable PC equipped with Windows NT.

Action - AJS

JHB is still due to find out who our Database SWAT Team should descend on.

Action - JHB

Mac Backups

CC said that moving Mac backups from an LC-II to an LC-475 would currently be too time-consuming for the speed increase it might give us. The situation might change if he gets less busy.

4 Agenda Items

Solaris 2.5

DWB has upgraded his desktop machine to 2.5. It's using a cache filesystem for the local binaries. On the whole it seems faster now. Rabbit is now a 2.5 install server. Syssies clients on wires A, D and F should now be upgraded to 2.5 to test the service.

Action - SYSSIES

Server installs for 2.5 are not yet as smooth as they should be; DWB is still working on them and will report back.

Action - DWB

DWB will build the remains of mousa into an X terminal server running 2.5.

Action - DWB

The Solaris 2.5 project is scheduled to be completed by the end of June. DWB will check all objects' compliance with 2.5 and inform object maintainers of any problems which need fixing. He will report back on 27 June.

Action - DWB

AJS will try and locate a copy of the 2.5.1 CD.

Action - AJS

JTB is leaving, so the cron and updatelf objects need a new maintainer. DWB will look for one.

Action - DWB

The Web

JTB reported that a meeting had taken place with RJP, in his capacity as Admin Convenor. RJP thinks that keeping our web information up to date is an admin responsibility. There was general agreement.

JTB, Jenny, Paul and RS had a meeting about technical web issues. A big web overhaul is now due, and we need a Web Project. Issues to be addressed include: the Apache web server, now being used by Tardis and the Schools Server and which seems faster; the Harvest web cache software, also used on Tardis; getting rid of the people "info" pages; reorganising the web server hardware; firewalls; and Java.

The Tardis TimeLords are all expert WebHeads, and Jenny knows lots of them. She will infiltrate and report back to us on great new web ideas.

Action - JENNY

Projects Mechanism

There has been some behind-the-scenes activity. AJS will report back to us on 13 June.

Action - AJS

VLSI Software

This needs to be upgraded. DDR will look for an expert syssie with lots of spare time to do the upgrade.

Action - DDR

CC should finish moving the VLSI licences.

Action - CC

Morna still in Package Mailfilters

Jenny reported that Morna's name is still in the mailfilter files of some packages which she used to maintain. Could the new maintainers please remove Morna's name?

Action - PACKAGE MAINTAINERS

5 Deferred Actions

13/6/96 JST to report back on print spooling technology investigations

27/6/96 GDMR to report back on password wrappers

27/6/96 PAUL to report back on the Syssies Admin Module and his fleshed-out exam paper.

27/6/96 DWB to report back on how well the objects work under Solaris 2.5

8/8/96 DWB to report back on mail loop solutions

Summer Students

Course Database Project - Progress Review

Rosemary Soutar

June 10, 1996

1 Technical Feasibility Study

1.1 What Platform(s)

The database design should be developed on the platform the database server resides on - probably PC (see below).

At the Pizza Lunch (Friday 24th May) there seemed to be some scepticsm about the future of Macs. Ought there to be a strategic decision to develop/run the database application on PCs? (RS has been looking at cross platform development tools, so there would be the possibility of running applications on a second platform.)

1.2 RDBMS products

Peter Thanisch gave a talk to a group of syssies on database technology. It was decided to use Microsoft SQL server as we already havde a copy for evaluation, it is a cheap option and seems to offer the flexibility we require (ODBC). Performance possibly requires further investigation?

1.3 Database Design Tools

A database design tool greatly simplifies the process of designing a database and keeping track of its tables and the relationships between them. It also allows the production of *pretty pictures*.

RS has been looking at database design tools for Windows -

- Erwin
- Powersoft StarDesignor - £260
- Powersoft S-Designor - £2200 - integrates with Powerbuilder (see below)

1.4 Application Development Tools

It seemed desirable to look at cross platform database application development tools. RS has looked at:-

- Powerbuilder products
  - Powerbuider Enterprise (for Windows) - £3295 - native driver connectivity
  - Powerbuider Professional (for Windows)- £2295 - ODBC connectivity
  - Powerbuilder for Mac - £3295
  - Powerbuilder for Unix - £3295
- JYACC products
  - JAM for MS-Windows with SQLServer Driver - £1200; annual support £600
  - JAM for Apple Macintosh with SQLServer Driver - £1200; annual support £600
  - JAM for Sun Solaris with SQLServer Driver - £3000; annual support £1200

1.5 Report Writers

- Infomaker (Powersoft) - *data access, management and reporting tool* - £159; this comes bundled with Powerbuilder, but is also available as a separate tool for end users.
- JAM/ReportWriter (JYACC) - this is an add-on product to JAM
  - JAM/ReportWriter for MS-Windows - £375; annual support £250
  - JAM/ReportWriter for Apple Macintosh - £375; annual support £250
  - JAM/ReportWriter for Sun Solaris - £1000; annual support £400

1.6 MIS Academic Services Project

Release 1 is due at the beginning of August and is to be beta tested in June. The current platform for this application is a Windows PC with a Novell connection - there is no provision for accessing their data by any other interface at present. (Although I think a Mac application is planned.) Murray Cole has agreed to become involved in the beta testing of the MIS application this month.

We need to pursue the possibility of connecting to their database -

- for batch input of data
- exchanging/updating data common to both databases
- using our own applications

2 Requirements Feasibility Study

RS has an understanding of the requirements for CS1 and CS3 but needs to discuss the requirements of all courses with the relevant course organisers before the database design is modelled.

3 Production

- database server - the Workstation version of MS-SQLServer has been set up and RS/PT have used it.
- design tools - RS/PT have loaded an evaluation copy of Erwin and are looking at designing a minimal course database.

Minutes of the Syssies Progress Meeting

Thursday, 13 June 1996

Present: JTB, JHB, AJS, LMB, JENNY, JST, GDMR, IRO, DWB, CC, PAUL

Apologies: RS

1

None.

2 Minutes of Last Meeting

Paul will not mail round information about longer-term Solaris developments, because it's not in a mailable format. Instead, he has lots of glossies and papers in his office which are available to interested syssies.

3 Matters Arising

Junk

JHB reported that the virtual jumble sale has become entangled with departmental committees. He will keep an eye on its progress.

Action - JHB

Purchasing

AJS reminded us that he wants purchasing proposals from the managers of all sorts of computing equipment (e.g. peripherals, printers), not just Suns. Please give purchasing ideas to AJS as soon as possible.

Action - SYSSIES

QI Move from DNS Host

DWB promised to carry out the move before the next syssies meeting.

Action - DWB

MIS Databases

RS has spoken to Sandy Thomson; she and MIC are waiting for software from him. She will chase him up.

Action - RS

AJS will install the software on a suitable PC when it arrives (probably mid-July now).

Action - AJS

JHB reported that he had identified at least one person in MIS to talk to. The SWAT team has been discussing its mission, and as soon as it has sorted itself out it will descend on MIS.

Mac Backups

CC was reminded to request a beefy backup Mac in the annual purchasing round.

Action - CC

Solaris 2.5

DWB reported that Jenny's, Julian's and Irene's Suns are now running 2.5, with no apparent problems. Solaris has now reached version 2.5.1. Mousa is now a 2.5.1 install server. DWB will upgrade the other 2.5.1 machines to 2.5.1 too.

Action - DWB

We should probably have more than one CD copy of 2.5.1. Perhaps we should also have the SDK on maintenance. AJS will chase up both issues.

Action - AJS

It's time for DWB to organise another Solaris 2.5 meeting.

Action - DWB

Paul offers the schools server as the victim for a 2.5.1 upgrade.

Action - DWB

Rainer is the new maintainer of updatelf and the cron object. The meeting offered him its hearty congratulations.

VLSI Software

IRO has taken over the VLSI licence move from beamer to benbecula.

Action - IRO

IRO will have an initial look at the VLSI software upgrade. CC pointed out that for various reasons it should be much easier than the last one.

Action - IRO

Printing

JST's report on print spooling technologies has been postponed for another 4 weeks to allow Paul Haldane more time to respond.

4 Chairman's Business

None.

5 Agenda Items

Purchasing

This is still not settled because lecturers appear to be too busy with exams to provide inputs to the purchasing process.

However we have obtained the go-ahead to buy 20 SS4 workstations for staff desks. This will cost approximately £65000.

The next obvious thing to consider upgrading is the staff servers which will have to support the new SS4s. The are already underpowered and may not be able to cope. AJS reported that an appropriate configuration for upgraded servers would be a Sparc Ultra with Fast/Wide SCSI, Barracudas, 64Mb memory. This would set us back about £30000.

The other obvious area where money needs to be spent is general disk upgrades, to rid ourselves once and for all of the ancient Wrens. This should be relatively cheap at about £5000.

Other things to consider are a beefy backup Mac, a colour printer and an hp24 replacement. JST was asked to suggest what we want in the way of new printers.

Action - JST

In theory, JHB is chairing a committee to put forward ideas for purchasing equipment. However, syssies felt that the process was running dangerously late this year and that decisions would have to be taken very soon. We will put forward a plan for spending which the rest of staff can then comment on. AJS will collate this syssies shopping list.

Action - AJS

New Syssies Mentors

AJS told the meeting about the new mentor system which has been worked out between the senior COs and MikeF.

John, Paul, George and Alastair will be the Fab Four *mentors* to the other syssies. This is a pro-active support position rather than any sort of direct line management. For more details see AJS's paper on the subject (attached).

Rooms

If you want a change of office, tell AJS.

Syssies Time Spreadsheet

JTB promised to distribute her "syssies time use" spreadsheet to all interested parties, so we can start using it in anger.

Action - JTB

Summer Students

Paul reported that he has been allocated two summer students. One will be working on developing machine inventory software (still to be decided by Paul) and the other one will be working on the documents project, converting LFCS reports to PDF format.

Portable Macs Maintenance

We need a proper list of Portable Macs, and we need figures on how much they would cost to maintain.

Action - LMB, CC

Holidays

CC kindly volunteered (ha!) to collate a list of syssies' summer holidays. Please mail your holiday dates to him.

Action - ALL SYSSIES

6 Deferred Actions

27/6/96 GDMR to report back on password wrappers

27/6/96 PAUL to report back on the Syssies Admin Module and his fleshed-out exam paper.

~~**27/6/96**~~ DWB to report back on how well the objects work under Solaris 2.5

~~**27/6/96**~~ It's time we organised another Syssies Lunch.

8/8/96 DWB to report back on mail loop solutions

8/8/96 JST to report back on print spooling technology

Mentors for COs

Each CO will have a senior CO (mentor) who is responsible for:

- promoting his/her welfare and career, e.g. training courses, conferences, physical resources.
- understanding the workload, problems, and priorities of the CO so that these can be taken into account, by transferring work, providing extra equipment, software or other resources.
- understanding the abilities and wishes of the CO so that they can be taken into account when considering allocation of projects.
- providing general technical support and advice. For example, helping the CO to develop and write technically good systems by giving advice on coding and good design practice and discussing the COs projects in more detail where appropriate.

The mentor will not:

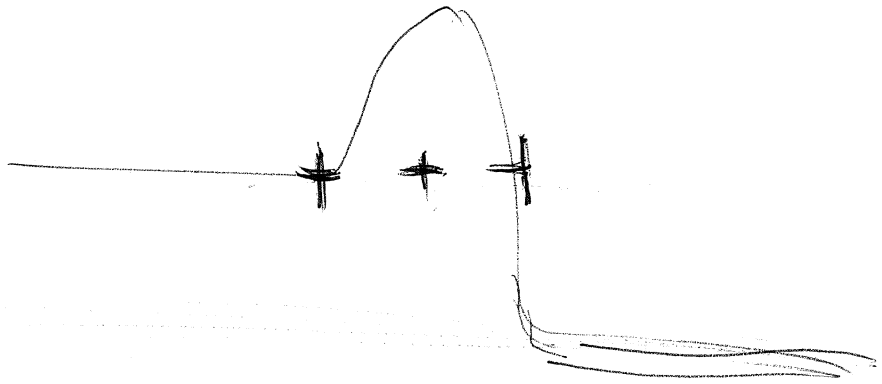
- monitor a CO's progress — that's the CO's own responsibility combined with project team and/or activity team meetings.
- dictate what a CO actually does, or be responsible for the work that the CO does.

The term *mentor* was previously used to describe a technical expert on whom COs could call for advice. We now suggest that because all COs have skills/knowledge that other COs don't have, all COs are capable of the role of technical expert. We would like to use the word *consultant* for this role. Consultants would be assigned to projects. They need not be the project coordinator and would not necessarily be involved in the project other than in a consultative role.

The original plan, as we saw it, was to work out what everybody was going and split them, by percentage effort, into the activity areas. The activity areas would then manage the accumulated effort they held, arguing to NPT et al for an increase in effort if they thought their activity area required it.

Rather than making this somewhat artificial split, we suggest that the four of us (GDMR, JHB, PAUL, AJS) manage the whole CO resource together. JHB would decide on the prioirities of projects in the service activity area and GDMR, PAUL, AJS would decide on the priorities of projects in the development activity area. We could then agree together on resourcing the two areas, plus the teaching activities, in one meeting, with NPT arbitrating if necessary.

We reckon that meeting every two months would probably be frequent enough to discuss new and on-going projects, but that a degree of flexibility should be retained for new projects that are agreed by all to be either urgent or low in resource cost. For long term (e.g. annual), large scale changes to an individual's or the CO group's balance between service, development, teaching and research support, the group should be expanded to include HOD and/or DHOD.



Jenny bow-out.

MSc Workroom Project Plan

Jane Hillston

Summer 1996

1 Introduction

The MSc workroom is currently not well used. On the other hand, the MSc students complain that they are not well provided for by the Department.

Since the Department is trying to increase the number of overseas students on the course it seems worthwhile to put some effort into improving their perception of their provision.

There seem to be two apparent reasons for the current under utilisation of the workroom.

- Firstly, the students do not really feel that it is *their* room, as opposed to a room that they can use when nobody else wants it. There are two contributory factors to this perception. Since the room is used for lunch time meetings twice a week the students are regularly asked to vacate the room. In addition, since the door is usually open, that end of the room tends to become a waiting area for lectures in 3317 during term time.
- Secondly, the room itself is not very appealing and is not particularly well-equipped either as a common room, or as a workroom. The room is painted a drab shade of grey. Although there is a kettle and sink there is no where for the students to keep, for example, tea bags or milk. There are currently only six tables suitable for desk work.

2 Definition of tasks/service to be provided

A bright and attractive room for the exclusive use of the MSc students as a combined workroom and common room, approximately two thirds of the area being given over to desk space. The facilities within the room should include

- some security system on the door so that access to the room is limited;
- comfortable seating in the common room area (close to the door) and a fridge and microwave, in addition to the existing kettle and coffee machine;
- a number of desks at the other end of the room, together with pigeon holes for lecture notes and other course materials; some screens so that this area can be partitioned into smaller work areas;

4 Timescales and Milestones

A deadline for the current round of applications under the minor works scheme has not yet been set but it is anticipated to be early to mid July. Prior to this JCD needs to supply a case for support to the Furniture Department to accompanying the preliminary costing.

A decision should be made by the end of July. If the application is successful ordering the furniture is expected to take 4-6 weeks.

Redecoration of the room is anticipated to take 2-3 days. Laying the new carpet will involve a half day clearing the room in preparation, a day to lay the new carpet and then approximately half a day to bring in all the new furniture. Thus, in total, the work should involve approximately one week's disruption to the room.

Clearly the alterations to the room need to be completed before the new students arrive at the end of September (30th). On the other hand it would be unreasonable to disrupt the current students during the final stages of their dissertations (1-18th September). Thus if the work cannot be completed before the end of August it should be scheduled for the week 23rd-27th September.

A Rationale

The Department would like to increase the number of overseas students on the MSc since this is one of the ways in which we can increase our revenue. These students pay a substantial sum of money in course fees, the same as a PhD student, but currently do not feel that they get very much for their money, especially when they compare themselves to the PhD students.

It is hoped that improving the common room/workroom, and giving it to the MSc class for their exclusive use, will greatly increase their perception of being looked after within the Department. In the long run many of these students go back to work in Universities and other institutions in their own countries and may well be in a position to recommend the course to their compatriots. Therefore as well as the benefits of having contented students during their course, the improved facilities may increase the chances of more overseas students in the future.

In addition, the building as a whole is quite over-crowded. For example, students report difficulties in finding suitable places to work in the libraries, as well as in the machine halls. If we have a room which is under-utilised, encouraging students to make better use of it may reduce the pressure for space elsewhere in the building. Thus in the long run this may benefit other students as well as the MScs.

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
Systems																
Printing										10.0						10.0
Solaris 2.5					12.0	2.0							2.0		4.0	20.0
Total Systems	0.0	0.0	0.0	0.0	12.0	2.0	0.0	0.0	0.0	10.0	0.0	0.0	2.0	0.0	4.0	30.0
Applications																
Databases														26.0		26.0
LaTeX							4.0				4.0					8.0
Web											2.0					2.0
Total Applications	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	6.0	0.0	0.0	26.0	0.0	36.0
Admin																
Project planning											12.0					12.0
Total Admin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	12.0

Tasks (units are elapsed weeks) February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
Teaching																
CS3 Individual project	4.0															4.0
CS3 System design	10.0	4.0														14.0
Total Teaching	14.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
Systems																
DNS						2.0										2.0
lcfg tidy						1.0										1.0
Equipment spend plan	3.0					1.0							2.5			6.5
Mid-year tuning						0.5										0.5
Rathlin						2.0										2.0
Macs			16.0							3.0		4.0	16.0			#REF!
PCs	8.0															#REF!
Summer equipment rebuild					2.0										4.0	6.0
Total Systems	11.0	0.0	16.0	0.0	2.0	6.5	0.0	0.0	0.0	3.0	0.0	4.0	18.5	0.0	4.0	#REF!
Applications																
Emacs														2.0		2.0
GUI/X						7.0										7.0
ML										4.0						4.0
News					1.0											1.0
VLSI			2.0													2.0
Videoconferencing	0.5															0.5
Total Applications	0.5	0.0	2.0	0.0	1.0	7.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	2.0	0.0	16.5
Admin																
Syssies' newsletter			2.0													2.0
Total Admin	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0

Title	Suggested by	Proposal date	Plan date	Status
Sysadmin module	lots	17-Jan-96		Insufficient resource
Automated exam marking	mrj	16-Mar-96		No-one liked it
Emacs mode for ML	stg		18-Mar-96	Waiting for decision?
Recording hardware info	paul		24-Apr-96	Vac student allocated
Schools server	paul/mikef/stg	22-May-96		
Web development	jtb	27-May-96		Plan in preparation
PDF for docs experiment	paul		06-Jun-96	Vac student allocated
Documentation overhaul	cc			
Fax	ajs			
Security	gdmr			
Network monitoring	gdmr			
Emacs	cc			
Environment	cc			
University-wide integration	ajs			
lcfg (son/daughter of)	paul			
Small Mac ML	jst			

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
User support																
Faults and Support			20%					80%				40%				140%
LFCS staff													5%			5%
Students in Project Lab		20%														
Mail								10%				10%				20%
Total User support	0%	20%	20%	0%	0%	0%	0%	90%	0%	0%	0%	50%	5%	0%	0%	165%
Systems																
YP distribution technology	4%															4%
Printing										10%						10%
DCS teaching systems					10%											10%
CS1 machines																0%
Project Lab and CS3 Lab		40%														40%
Staff machines															40%	40%
LFCS systems															20%	20%
Annex	4%															4%
Macs										10%		40%				50%
Mail system					5%											5%
News system																0%
SGI	5%															5%
Total Systems	13%	40%	0%	0%	15%	0%	0%	0%	0%	20%	0%	40%	0%	0%	60%	188%
Applications																
Databases														10%		10%
LaTeX											40%					40%
ML										5%						5%
Web											5%			5%		10%
News					10%											10%
Package management											5%					5%
Installing various packages		10%														10%
Total Applications	0%	10%	0%	0%	10%	0%	0%	0%	0%	5%	50%	0%	0%	15%	0%	90%

Maintenance (recurrent) units are % of full-time post February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
Admin																
DCS purchasing		5%							20%							25%
LFCS purchasing																0%
Maintenance contracts												10%				10%
Total Admin	0%	5%	0%	0%	0%	0%	0%	0%	20%	0%	0%	10%	0%	0%	0%	35%

Misc Work (units are % of full-time post) February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
Teaching																
Student supervision		10%														10%
Tutorials and lectures					10%											10%
Total Teaching	0%	10%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%
Admin																
Syssies meetings	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	30%
Committees																0%
Total Admin	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	30%
Systems development																
General development of systems						40%							20%			60%
Technical strategy	20%					20%							20%			60%
Total Systems development	20%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	40%	0%	0%	120%

Maintenance (recurrent) units are % of full-time post February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total	Required	Shortfall
User support																		
Faults and Support			5%					80%				40%				125%	125%	0%
LFCS staff and mikef													5%		5%	10%	10%	0%
Mail					5%			5%				5%				15%	15%	0%
Total User support	0%	0%	5%	0%	5%	0%	0%	85%	0%	0%	0%	45%	5%	0%	5%	150%	150%	0%
Systems																		
YP distribution technology	2%															2%	2%	0%
DNS & NTP						4%										4%	4%	0%
lcfg and lfu					5%								3%			8%	8%	0%
Printing								2%	1%	35%						38%	38%	0%
DCS teaching systems					10%											10%	10%	0%
CS1 machines						10%										10%	10%	0%
Master binary server						2%										2%	2%	0%
Project Lab and CS3 Lab		40%														40%	40%	0%
PC Linux service	5%															5%	5%	0%
Staff machines															40%	40%	40%	0%
LFCS systems															20%	20%	20%	0%
Annex	2%															2%	2%	0%
Macs			35%							10%		20%	5%			70%	90%	20%
Mail system					5%	2%	5%	2%								14%	14%	0%
News system					5%			1%								6%	6%	0%
Backups							15%	5%								20%	20%	0%
Security						5%			1%							6%	6%	0%
SGI	2%															2%	2%	0%
Total Systems	11%	40%	35%	0%	25%	23%	20%	10%	2%	45%	0%	20%	8%	0%	60%	299%	319%	20%
Applications																		
Databases														10%		10%	10%	0%
Macs			20%									20%	5%			45%	55%	10%
LaTeX											30%		10%			40%	50%	10%
ML										5%						5%	5%	0%
Web: server											5%			5%		10%	15%	5%
Web: Netscape			5%													5%	5%	0%
News: user agents					10%	2%										12%	12%	0%
Mail: user agents						2%										2%	2%	0%

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total	Required	Shortfall
QI				7%												7%	7%	0%
X						7%										7%	7%	0%
Package management											5%					5%	5%	0%
Misc applications	5%	10%				10%	10%		1%				2%		2%	40%	40%	0%
Total Applications	5%	10%	25%	7%	10%	21%	10%	0%	1%	5%	40%	20%	17%	15%	2%	188%	213%	25%
Admin																		
DCS purchasing	1%	5%	2%		2%				20%							30%	30%	0%
LFCS purchasing													5%			5%	5%	0%
Documentation			2%													2%	2%	0%
Maintenance contracts/inventory			2%									10%				12%	12%	0%
Total Admin	1%	5%	6%	0%	2%	0%	0%	0%	20%	0%	0%	10%	5%	0%	0%	49%	49%	0%
Total Maintenance	17%	55%	71%	7%	42%	44%	30%	95%	23%	50%	40%	95%	35%	15%	67%	686%	731%	45%

Additional duties (units are % of full-time post) February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total	Required	Shortfall
Teaching																		
Student supervision	5%	10%				4%			5%	1%			7%		2%	34%		
Students in Project Lab		20%														20%		
Tutorials and lectures					10%				2%							12%		
Total Teaching	5%	30%	0%	0%	10%	4%	0%	0%	7%	1%	0%	0%	7%	0%	2%	66%		
Admin																		
Room allocation	5%															5%		
Total Admin	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%		
Misc																		
Technical strategy	15%					20%			10%				15%			60%		
Committees									20%							20%		
Syssies meetings	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	30%		
Mentoring	10%					10%			10%				8%			38%		
External relations within Univ	2%								8%							10%		
MBWA									20%							20%		
External contracts/foreign work									20%				3%			23%		
Total Misc	29%	2%	2%	2%	2%	32%	2%	2%	90%	2%	2%	2%	28%	2%	2%	201%		
Total Additional duties	39%	32%	2%	2%	12%	36%	2%	2%	97%	3%	2%	2%	35%	2%	4%	272%		

Small Projects (units are person weeks) February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total	Required	Shortfall
Teaching																		
CS3 System design	6.0	4.0				0.5										10.5	10.5	0.0
Total Teaching	6.0	4.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	10.5	0.0
Systems																		
DNS: alpha and beta test of bind						2.0										2.0	2.0	0.0
lcfg tidy						1.0										1.0	1.0	0.0
Equipment spend plan	2.0					2.0									0.5	4.5	4.5	0.0
Macs: installation and development			2.0				1.0					4.0	2.0			9.0	9.0	0.0
Macs: CAP, printing, revrdist										2.0						2.0	2.0	0.0
PCs: Windows NT evaluation	4.0															4.0	4.0	0.0
PCs: installing samba under solaris	1.0															1.0	1.0	0.0
Printing: Linux, SGI; HP laserjets; Review plp										5.0						5.0	5.0	0.0
SGI rebuild	2.0															2.0	2.0	0.0
Summer equipment rebuild					3.0	2.0									3.0	8.0	8.0	0.0
Schools Web server	0.1							0.1					1.0			1.2	1.2	0.0
Total Systems	9.1	0.0	2.0	0.0	3.0	7.0	1.0	0.1	0.0	7.0	0.0	4.0	3.0	0.0	3.5	39.7	39.7	0.0
Applications																		
Emacs: install 19.14 - investigate if OK for default			2.0													2.0	2.0	0.0
ML: njml, emacs interface, lib versions problems										6.0						6.0	6.0	0.0
News: review running our service					1.0											1.0	1.0	0.0
VLSI: new version Cadence; Hspice							3.0									3.0	3.0	0.0
Total Applications	0.0	0.0	2.0	0.0	1.0	0.0	3.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12.0	12.0	0.0
Admin																		
Syssies' newsletter			2.0													2.0	2.0	0.0
Univ admin: EuroPractice accounts				5.0												5.0	5.0	0.0
Public lab event tech support			2.0													2.0	2.0	0.0
Total Admin	0.0	0.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	9.0	0.0
Total Small projects	15.1	4.0	8.0	5.0	4.0	7.5	4.0	0.1	0.0	13.0	0.0	4.0	3.0	0.0	3.5	71.2	71.2	0.0

	Status	Suggested by	Plan date	Proposal date
Allocated projects				
Solaris 2.5	In progress	dwb	07-Feb-96	
Student course database	In progress	rs	10-Jun-96	
LaTeX2e installation	Finished	jtb/iro/morna	28-Feb-96	
Project planning	In progress	jtb/mikef	04-Mar-96	
Hardware information	Vac student allocated	paul	24-Apr-96	
Docs: PDF technical note archives	Vac student allocated	paul	06-Jun-96	
Total allocated projects				
Unallocated projects				
System adminstration CS4 module	Insufficient resource	lots		17-Jan-96
Automated exam script marking	With Teaching Committee	mrj		16-Mar-96
Improved emacs mode for ML	Waiting for decision	stg	18-Mar-96	
Web server development	Plan in preparation	jtb		27-May-96
GUI/X: OWlibs, CDE and Fresco		gdmr		
Docs overhaul: technotes, Web pages		cc		
Network fax		ajs		
Security		gdmr		
Network monitoring		gdmr		
Emacs: emacsclient and jcb's version		cc		
Overhaul user environment		cc		
Integration with EUCS and other depts		ajs		
New version of lcfg		paul		
Small Mac ML		jst		
Researching Linux as undergrad platform				
Total unallocated projects				

Projects (units are person weeks) February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total	Required	Shortfall
Allocated projects																		
Solaris 2.5	1.0				12.0	2.0							2.0		4.0	21.0	21.0	0.0
Student course database	1.0												1.0	13.0		15.0	15.0	0.0
LaTeX2e installation							6.0				8.0		1.0			15.0	15.0	0.0
Project planning											8.0					8.0	12.0	4.0
Hardware information													5.0			5.0	11.0	6.0
Docs: PDF technical note archives													1.0			1.0	7.0	6.0
Total allocated projects	2.0	0.0	0.0	0.0	12.0	2.0	6.0	0.0	0.0	0.0	16.0	0.0	10.0	13.0	4.0	65.0	81.0	16.0
Unallocated projects																		
System adminstration CS4 module																	18.0	18.0
Automated exam script marking																		
Improved emacs mode for ML																	4.0	4.0
Web server development																	4.0	4.0
GUI/X: OWlibs, CDE and Fresco																	7.0	7.0
Docs overhaul: technotes, Web pages																		
Network fax																		
Security																		
Network monitoring																		
Emacs: emacsclient and jcb's version																		
Overhaul user environment																		
Integration with EUCS and other depts																		
New version of lcfg																		
Small Mac ML																		
Researching Linux as undergrad platform																		
Total unallocated projects																	33.0	33.0

Final totals

units are % of full-time post or person weeks

February 1996 - August 1996

	ajs	arch	cc	ddr	dwb	gdmr	iro	jenny	jhb	jst	jtb	lmb	paul	rs	rwt	Total
Total Maintenance %	17%	55%	71%	7%	42%	44%	30%	95%	23%	50%	40%	95%	35%	15%	67%	686%
Total Additional duties %	39%	32%	2%	2%	12%	36%	2%	2%	97%	3%	2%	2%	35%	2%	4%	272%
Total %	56%	87%	73%	9%	54%	80%	32%	97%	120%	53%	42%	97%	70%	17%	71%	958%
Total Small projects (weeks)	15.1	4.0	8.0	5.0	4.0	7.5	4.0	0.1	0.0	13.0	0.0	4.0	3.0	0.0	3.5	71.2
Total Projects (weeks)	2.0	0.0	0.0	0.0	12.0	2.0	6.0	0.0	0.0	0.0	16.0	0.0	10.0	13.0	4.0	65.0
Total Project work (weeks)	17.1	4.0	8.0	5.0	16.0	9.5	10.0	0.1	0.0	13.0	16.0	4.0	13.0	13.0	7.5	136.2
as a %	66%	15%	31%	19%	62%	37%	38%	0%	0%	50%	62%	15%	50%	50%	29%	524%
Total Unallocated projects (weeks)																

Final totals

units are % of full-time post or person weeks

February 1996 - August 1996

	Required	Shortfall
Total Maintenance %		
Total Additional duties %		
Total %		
Total Small projects (weeks)	71.2	0.0
Total Projects (weeks)	81.0	16.0
Total Project work (weeks)	152.2	16.0
as a %	585%	62%
Total Unallocated projects (weeks)	33.0	33.0

Minutes of the Syssies Progress Meeting

Thursday, 15 August 1996

Present: PAUL, JTB, IRO, LMB, RS, ARCH, AJS, JST, GDMR, CC

1 Agenda Items

New CSOs

The closing date for applications is 16 August and the interviews will be on 23 August. We're going to employ one or two CSOs this time and hopefully up to three new ones eventually. The CSOs will nominally assist the "Gang of Four", but in practice will spend a lot of time helping other COs, e.g. Rainer and Chris.

The LFCS will hopefully be hiring a CO on a three year contract, and it is hoped that this CO will take charge of LaTeX.

Machine Moves

JTB has the web server hardware which she wanted, except for a quad ether card. She will enquire about delivery times and order one.

Action - JTB

Paul said that the LFCS upgrades should be relatively minor, and aren't urgent. AJS asked that they not be done at the beginning of term, in fact not in October at all. Paul will talk to Rainer about it.

Action - PAUL

Equipment

An equipment purchasing meeting happened on Friday 9th August. Some of the bids were presented in an incomplete fashion and are being rewritten for the next meeting, which will be arranged by JHB.

Action - JHB

Some of the bids should be considered by the Teaching Committee; we need to establish a timescale for this and arrange it.

LaTeX

JTB and MXR are finishing off loose ends with the LaTeX 2ε installation. When JTB leaves, MXR will carry on with essential maintenance but will otherwise leave LaTeX alone.

JTB and CC will ask MXR to keep CC informed of LaTeX developments, so that style files (etc.) can be copied to OzTeX on the Macs as/when they change on Unix.

Action - JTB, CC

The CS technotes style is almost ready to enter service; the only remaining things to be done now are an A5 technote printer filter and an arrangement to print technotes from Macs. Julian will look into both matters.

Action - JST

SGIs

The SGI machines are no longer supported by syssies. They will in future be managed by RAM, and to some extent by MXR and by a new BT-sponsored postgraduate student. Cross-mounting of NFS filesystems between SGIs and Suns will be stopped; all file transfers between the two networks will have to be done by some other means (e.g. ftp) from now on.

Reasons: the SGIs are less secure than the Suns, and nobody has time to keep up with all the security patches; and the configuration of the SGIs mean that they are ill-suited to the DCS environment. For example package installations are automated and must be done as root.

Mac Maintenance

We're going to put the Macs on a maintenance contract with Scotsys. We think that using hot spares just isn't practical, because we have too many different types of Mac and none of them can be counted as "spare". The contract specifies an 8 hour response and fix/replace within 3 days. LMB will check with Scotsys - do they wipe disks which they replace, to protect our confidential information?

Action - LMB

Java Support

We need someone to support Java software tools, to stop the proliferation of them in home directories. JHB has expressed interest in this.

Action - JHB

Start of Term

DDR has been doing lots of work on the account creation and QI software associated with the start of term. Paul and JTB will talk to him about it – there is some concern about development of extra new functionality happening late in the day.

PAUL and JTB (and others) will have a meeting next week about this and also about the Web. RS will get a summary of DDR's software developments for that meeting.

Action - RS

MIME

CC reported that there is at last some sort of MIME functionality in emacs on the horizon. CC will give details when it's installed.

Action - CC

XEmacs 19.14

CC reported that this is working reasonably well now, and has replaced XEmacs 19.13. It has not yet been made the default "`xemacs`" though, because it is too

slow to start up. CC is looking at ways to get round this.

Action - CC

Technotes

CC warned people that he is examining technotes and highlighting the ones which need updating. Other syssies pointed out that major rewrites should wait for the CS technote style.

PDF conversion

The first results are coming in from Paul's summer student who has been converting technotes and other documents to PDF. Good results can be obtained from LaTeX 2ε files which have been processed with outline fonts included. Older LaTeX files, and bitmap fonts, cause readability problems. Overall the experiment seems to have been a success, and PAUL recommends moving all non-HTML web documents to PDF.

JST will investigate the new version of Ghostscript, and in particular its ability to generate PDF.

Action - JST

Syssies Progress Meeting

Thursday 5th Sept, 1996

AGENDA

1. Minutes of Previous Meeting

2. Matters Arising

3. Agenda Items

   New CSOs (AJS)
   Who's joining us. What they're going to be doing.

   Mentoring (GDMR)
   Who's been assigned whom. What happensnext.

   Machine upgrades (GARY)
   A report on where the machine upgrades are.

   Start of term (GDMR)
   Are we ready ? What's still to be done.
   Who is going to be doing what.

   LaTeX (GDMR)
   The current (lack of) support situation.

   Passwords (GDMR)
   Several of the system root passwords have been cracked by Crack.
   We should get these changed.

   Kit buying (GDMR)
   A status report.

   Junk (AJS)
   The recent junk disposal exercise doesn't appear to have made much of an impression on junk in themachine halls. How do we progress now ?

   Server area tidy up (GDMR)
   The machine halls are getting untidy again. Once the machine moves have settled down and all the stuff that's just parked there is removed, we should redistribute what's left in a tidy manner.

   Mbone (AJS)
   A status report.

   SGIs (AJS)
   A status report.

4. Any Other Business

Minutes of the Syssies Progress Meeting

Thursday, 5 September 1996

Present: DWB, IRO, AJS, GARY, LMB, RS, GDMR, CC, JTB, JST, RWT

1 Minutes and Matters Arising

We still haven't got a quad ether card for the Web machine. AJS and GDMR will add it to the kit bid.

Action - AJS, GDMR

The LFCS upgrades to Solaris 2.5.1 are planned for late September; there's no hurry.

JHB refined the purchasing list once more (with the help of SOA, who prioritised the teaching-related bids), to general lack of interest from most of the department. The Gang of Four will therefore decide who gets what, with the approval of NPT.

Action - G4

Martin Reddy has taken over LaTeX. He will not support OzTeX but has made sure that it's in a good state for now, and will keep CC informed of LaTeX changes.

Scotsys *do* wipe disks when they take them away from us.

CC has speeded up XEmacs 19.14 to some extent, but still has more to do before making it the default XEmacs.

Action - CC

JST has installed the new version of Ghostscript. This version can generate PDF; JST will investigate the quality of the PDF it produces.

Action - JST

Admin jobs
WWW Data.
Rosehill.

Locks
Archie's Alarm / Lock interlock
3 x Dead locks
Re site RS232.

2 Agenda Items

LaTeX

MXR has written a document describing the new lessened support for LaTeX. Basically, the Unix version is supported to some extent and the Mac version not at all. The document can be found at `http://www.dcs.ed.ac.uk/packages/latex`, or directly from the shell by typing the command `"texdoc support"`.

Martin is working 6 hours per week on LaTeX. The `latex` account has a mail responder which describes the level of support. MXR will check that account's mail occasionally.

CSOs

We all welcomed Gary. In a couple of weeks Samantha Osmer will also join us.

There will be a CSO duty office – hopefully Cindy's office – which will contain one CSO in the morning and two in the afternoons. The second CSO in the afternoon will deal with all the minor physical jobs which were identified in the morning, for example client rebooting. At least one CSO will always be in the duty office during working hours.

At other times, the CSOs will be in their own offices. There they will be working for their G4 boss or one of the other COs.

LMB will work for PAUL, GARY for AJS and Samantha for GDMR.

The CSOs will need a degree of protection from interruption when they're not working in the duty office. We'd like Mike to help out with this when necessary, since the duty office idea was originally his.

Mentors

The mentor system is up and running, apart from JHB who hasn't spoken to IRO or ARCH yet.

RWT and CC are with AJS, RS is with PAUL, and DWB and JST are with GDMR. PAUL will also be assigned to the new LFCS CO.

IRO reported that our Faculty has been given an experimental SHEFC grant to set up a mentoring system, and that training (and money?) is available for mentors. We don't know if this is like our scheme or not. However, more details

can be got from Marian Larson of Personnel (Marian.Larson@ed.ac.uk). The mentors should investigate this and report back.

JHB.

Action - G4

Machine Upgrades

An up to date list of upgrades and kit moves can be got from GARY. The upgrades should be comfortably completed before the start of term.

Start of Term

RS reported that DDR's software is now stable for the time being. There should be a dry run of the start of term account creation to test the software.

Action - LMB, GARY

LMB has been checking for inconsistencies between the password file and the QI database. A number have been found but are mostly minor. The work is very time-consuming however.

CS3 and perhaps CS4 should have an environment more like the CS2 one.

Action - CC and DWB

Root Passwords

GDMR has fed lots of dictionaries into the password cracker, and it has cracked some of our most venerable root passwords. He will come up with a secure new password and install it on the machines affected.

Action - GDMR

Junk and Tidy-Up

Most of the junk in the junk room has been disposed of. However, we forgot to include the junk in the machine halls in the last junk bonanza. JHB will dispose of this extra junk.

Action - JHB

Plotters → Geography etc.

Docs → Students

We will have a grand tidy-up of the machine halls, the network, and everything, on the same day that the technicians rebuild the 2501 hub area. This is expected to happen near Christmas. AJS will coordinate this with the technicians.

Action - AJS

Printers

A5 documents can now be printed onto A4 paper with the new "`-Zisa5`" option. They come out looking rather like A4 printed 2up. JST is still looking at how to do something similar for Macs.

Action - JST

JST has met with Paul Haldane, who recommends that all departments should move towards *LPRNG* (Unix), *Samba* (Windows) and *CAP* (Macs). LPRNG can optionally query Hesiod for printer information. Our Linux machines have already been using the LPRNG client side very reliably since January. JST will move the Suns to LPRNG in two stages: firstly the clients and secondly the servers.

LPRNG has the advantage that spool directories don't have to be exported. This gets rid of the problems we currently experience with PLP when a spool directory is moved from one machine to another.

3 Deferred Actions (from 27 June)

25/7/96 AJS to chase extra CDs of 2.5.1 and SDK maintenance.

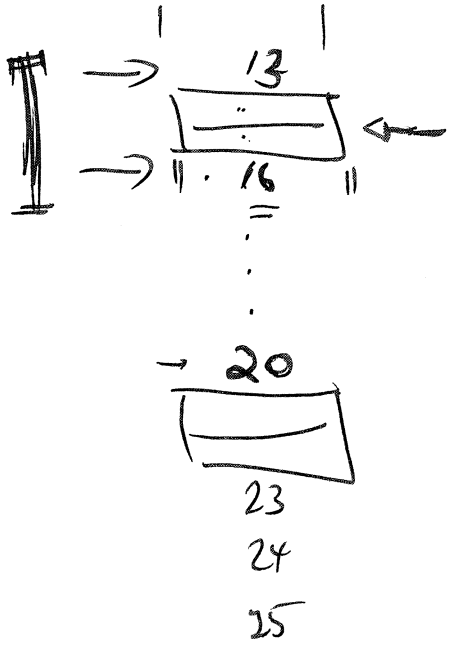
8/8/96 PAUL to report back on the Syssies Admin Module and his fleshed-out exam paper.

8/8/96 DWB to report back on mail loop solutions

8/8/96 GDMR to report back on password wrappers.

TN8.

Techdoc CSTV



Syssies Progress Meeting

Thursday 26th Sept, 1996

AGENDA

1. Minutes of Previous Meeting

2. Matters Arising

3. Agenda Items

    Kit buying (Raised by PAUL)
        A status report.

    Support Room (Raised by PAUL)
        A discussion on how we use the support room.

    WWW data (Raised by RS)
        Now that Cindy has gone, who is looking after maintenance of WWW data.

    QI Database (Raised by AJS)
        Why are there inconsistencies between the password file and the QI database. Who is looking after the QI server.

    Mbone (Raised by AJS)
        A status report.

4. Any Other Business

September 26, 1996

DEPARTMENT *of* COMPUTER SCIENCE
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Professor Mike Fourman
Head of Department
Computer Science

Dear Mike

Senior CO meeting on strategic issues

The senior COs discussed strategic issues at a meeting on Thursday 22 August.

We see a number of strategic threads we need to consider:

Effective use of our time.

As a scarce resource we need to ensure that the resource management surrounding us makes best use of all CO, CSO (and indeed technician) time. This raises a number of issues:

Unsuitable jobs

Clearly if we are doing jobs that others can do, this time is taken away from jobs that only we can do. There is little point for instance in Alastair, who has 15 years experience in systems management using it to do room allocation! Such duties should be delegated to full-time administrators (such as Cindy or Monika) backed up where necessary by senior staff. There are other instances.

Making effective use of support staff

A lot of attention has been paid recently to quantifying and prioritising CO work; We believe we have the process of allocating CO and CSO effort in hand (see below). We are however concerned about allocation of technician effort - it does seem that decisions about priorities are being made on a very ad hoc basis and we are finding that central network support is competing with development of machine-controlled bagpipes on a potentially equal basis which we believe is wrong.

We believe the department should review how technician time is allocated. We further believe that as most technician time is supporting activities now looked after by the CO "gang-of-four" that technician support should be managed by this group

Resource planning

Some aspects of planning still assume implicitly that there is an infinite amount of resource. CS4/MSc projects in particular are not vetted to ensure that there is resource and expertise to cover them - they are sometimes vetted qualitatively but a quantitative check needs to be done as well. "An NT project" is maybe acceptable but if seven NT projects are all taken up we may not have effort or machines to cope.

Projects should be vetted in future at the time of allocation and checked against resource limits

Staff development

We need to maintain an active hand in staff development - staff are working in an environment demanding more and more for less and less and they need to be motivated.

We need to ensure that there are some appropriate rewards, however small, for work that gets us somewhere, even if just a "pat on the back".

We need to ensure that *all* staff are confident that someone is actively taking care of their longer-term needs.

We mustn't stint on giving staff access to additional relevant information - - conferences, books etc.; we don't do enough of this at present.

We must ensure that COs have sufficient space to research and develop new interests. This is something that mentors (see below) have to implement but the Department needs to recognise that it is necessary and support us. Without it staff lose access to current skills and become demotivated.

Mentors

We have at last installed a "mentor" scheme. This is a set of pairings where each of the senior COs takes on a limited number of junior COs and undertakes to

- Talk to them about immediate work and ensure that they are adequately supported and resourced
- Discuss longer-term issues and how, for instance the junior CO can achieve longer-term personal goals.
- Broker access to technical information and set up mechanisms where new expertise can be obtained
- Act as a line of communication between department and COs so that achievements are noticed and seen to be noticed.

CSOs

We have reached agreement on a strategy concerning CSOs.

We have agreed a significant increase in the CSO staff, certainly to three and possibly to four. This new balance requires a different way of using CSO time and greater management responsibility for the senior COs.

We propose to allocate a proportion of each CSO's time to general support as at present, except that there will be a "duty office" and a CSO rota to cover it. The remaining time will be allocated to each of the senior COs, starting with George and Alastair. The CSO will be personally responsible 1:1 to a manager from the gang-of-four who will use the effort to alleviate the currently large amount of CO time spent on routine work. The pattern will differ within each partnership and it is quite possible that a large amount of CSO time will be delegated out to Rainer or Dave Baines who bear the brunt of routine service support. JHB has less immediate need of direct assistance - duties here will generally be handled as part of the duty rota.

COs

The above is NOT a substitute for the current shortage of COs. At least one replacement is required for JTB/DDR/Morna who will be immediately asked to look after LaTex as at present this is unsupported.

General involvement

We have had several rounds of defining structures within the department and there is still some confusion about who does what, reporting to whom.

It is important that the structures, procedures and accountability arrived at here are well advertised, starting with announcing them at a departmental meeting. We do actually seem to have made some real decisions and achieved a degree of unanimity amongst the senior COs - it is important for everyone else to be clear about what is happening and understand that the arrangements are backed formally by the department.

Specific Projects

We are agreed that the situation is now such that a number of major items are unsupported and that there is no point in pretending otherwise. LaTeX is still rotting badly despite Martin Reddy's excellent work and the Web infrastructure must be regarded as effectively frozen given Rosemary's other heavy commitments.

In addition there is no point in attempting major new projects at the present time, one particular instance being the student database application. We simply don't have the effort to contemplate it.

Yours sincerely,

Paul Anderson
John Butler
George Ross
Alastair Scobie

Minutes of the Syssies Progress Meeting

Thursday, 26 September 1996

Present: CC, PAUL, AJS, JST, DWB, GDMR, RWT, RS, LMB, SAMO, GARY, JHB

1

Kindly provided by Paul.

2 Minutes

Bottom of page 2: the *University* has been given a SHEFC grant, not the Faculty.

3 Chairman's Business

Welcome to Samantha! Her username is *samo*.

4 Matters Arising

Quad Ether Card

The quad ether card has been re-inserted in the kit bid list. Could whoever next buys something from Access please add that in to their order.

Action - KIT ORDERERS

Speeding Up XEmacs 19.14

CC is still working on this.

Action - CC

Quality of Ghostscript's PDF

JST reported that the new Ghostscript's PDF conversion facility only properly supports a limited number of fonts; and that text strings in other fonts are converted to bitmaps. This leads to very poor quality in some circumstances, and to huge PDF files.

This makes it even more important that we buy Adobe Acrobat Distiller for Unix and encourage people to use it. RS will order it.

Action - RS

SHEFC Grant for Mentoring

The Gang Of Four will investigate.

Action - G4

"Start of Term" Software

Lindsey's dry run of the software was successful.

Maintenance arrangements for the software were discussed. The software is still maintained by DDR, and is located at least partly in his home directory. At some point the sources should all be transferred to their own package home directory, the software should be documented, and someone else should take over maintenance of it.

DWB and RS expressed tentative interest, but everybody agreed that nothing should be touched until well after the start of term.

CS3/4 Environment

This shouldn't take long. DWB and CC will do it before the next meeting.

Action - DWB, CC

Root Passwords

GDMR will come up with some secure new root passwords and will let the relevant people know what they are. He'll also include a random salt so that snoopers can't tell so easily which machines' root passwords are the same.

Action - GDMR

Machine Halls Junk

JHB has thrown away some tardis bits, and will arrange for the disposal of some old manuals and plotters.

Action - JHB

Grand Machine Halls Tidy-Up

The meeting discussed the merits of several possible dates in mid-December for doing this, but couldn't agree on one. AJS will talk to the technicians again about it, and will check when the maintenance weekend is.

Action - AJS

Printing A5 Documents from Macs

JST said that this is quite easy - just print 2up using the Laserwriter 8 driver, and scale up the size by 141%. This produces reasonable but not great results; when outstanding print quality is important, documents should be printed from a Sun.

This information will be added to technote 2 (printing).

Action - JST

CSTN LaTeX Style

This is now finished and deployed. All home-produced technotes should be converted to the new style.

Action - ALL TECHNOTE MAINTAINERS

Syssies Admin Module

Paul recommended that we drop this, because we just don't have enough resources to work on it. However, Paul knows people elsewhere who are doing such courses, and will keep in touch with developments.

Eliminating Mail Loops

DWB has come up with a number of approaches which will hopefully reduce the incidence of nasty mail loops. However, PP does not lend itself to low-level hacking so we can't see a way of eliminating the problem completely.

It was suggested that we put a wrapper around `resend`; DWB will look at this and report back in 2 months.

5 Agenda Items

Kit Buying

The shortlist has been approved, and kit buying is finally going ahead.

The "committee approach" didn't work. We must come up with a better purchase mechanism for next year!

Action - G4

The Support Room

The CSOs need a different furniture arrangement in the room; it's currently designed for only one person. They will agree between them the best way to organise the room, then contact JCD about furniture.

Action - LMB, SAMO, GARY

Two Suns and a suitable Mac are also needed. Lindsey will try to get them, in consultation with COs.

Action - LMB

The support room should have at least four ethernet sockets *and* should be provided with the necessary wiring to control the door locks. The CSOs will discuss this with the technicians.

Action - LMB, SAMO, GARY

Maintaining our Web Data (and other Disliked Admin Duties)

Now that Cindy has left, there is pressure on RS to maintain the content of the departmental web page - news, events, and so on. The meeting agreed that she should refuse to do this because she doesn't have the time.

We should prepare a list of admin jobs which we do, and give it out widely; this might have an influence on the job description and hiring of any possible new admin officer.

Action - G4

The secretaries should all be given a copy of Pagemill (for web page writing), and given support and encouragement in its use.

Action - RS

Irene is investigating ways of checking the consistency and soundness of our web pages and the links they contain. She will report back at the next meeting.

Action - IRO

There was confusion about the `enquiries@dcs` e-mail address. We decided to kill it. People should use `support` instead.

Action - LMB/DWB

The `enquiries` address may be mentioned in the QI technote; CC will check and remove it if so.

Action - CC

QI Inconsistencies

LMB checked and found 600-700 inconsistencies between the QI database and the password file.

The current inconsistencies are being ironed out by LMB.

The data in QI will automatically be kept consistent with the system files in future. Procedures to do this will be put in place by whoever takes on QI from DDR. The Gang of Four should find someone to do this.

Action - G4

Scripting Languages

AJS was concerned that scripting languages unfamiliar to most syssies (for example Tcl/Tk) may be used in critical places. We wondered if we should standardise on one language for critical applications, but decided on the whole not to.

Missing Cables

DWB noticed that SCSI cables had gone missing from two ELCs in the north machine halls. Since these cables are of a type unlikely to be useful to home PC owners, we wondered if they might have been borrowed by tardis maintainers? LMB will ask SXW.

Action - LMB

6 Deferred Actions

10/10/96 AJS to chase extra CDs of 2.5.1 and SDK maintenance.

24/10/96 DWB & RS to consider taking over maintenance of DDR's account creation software.

24/10/96 GDMR to report back on password wrappers.

21/11/96 DWB to report back on mail loop solutions, including putting a wrapper round `resend`.

Strategic directions for the Department's Computing Service

CS2/Linux Project key questions

1. Who is entitled to give a definitive answer to Q2?
2. Is rebuilding the CS2 lab the top priority for use of the 1996/7 capital?
3. If not, what is?
4. If so, what are the driving priorities that we should be sure to address, i.e. why are we doing this (particularly: Are there any showstopper questions which an adverse answer means we shouldn't do this?)
    - price/performance?
    - staff effort? (probably not)
    - suitability for teaching requirements?
    - compatibility with student machines?
    - a convenient pilot for testing our beliefs on price/performance etc.?
5. Do we require a feasibility study (or have we de facto decided we're going ahead with x86/linux anyway)?
6. If yes, what criteria form part of the study?
    - Do we need to provide figures for price/performance improvements?
    - If yes,
        - why?
        - what constitutes satisfactory/unsatisfactory savings?
    - Is PC/linux the only platform we should consider?
        - If not, is NT?
        - Sun?
        - dual-boot linux/NT?
            - why?
    - Are CS2's teaching plans well-enough known that a specification can be prepared for us to work to?
        - Will all necessary software (or suitable substitutes) run on x86?
        - Moscow vs Poly ML?
    - If not
        - Is CS2 confident that it understands what we are proposing to do well enough to say that it can work with it?
    - What are the major tasks required of systems staff?
        - Who will be undertaking the major tasks?
    - What are the major tasks required of academic staff?

7. Who is entitled to give a definitive answer to Q8?
8. Is it agreed that an attempt will be made to rebuild the CS2 lab according to the findings of the feasibility study (if performed) or as a lab of x86/linux machines if not?
9. If so, by what date must we have a clear go-ahead ?
10. If not, what, then?

CS1/NT Project key questions

1. Who is entitled to give a definitive answer to Q2?
2. Is rebuilding the CS1 lab the top priority for use of the 1997/8 capital?
3. If not, what is?
4. If so, what are the driving priorities that we should be sure to address, i.e. why are we doing this (particularly: Are there any showstopper questions which an adverse answer means we shouldn't do this?)
    - price/performance?
    - staff effort?
    - suitability for teaching requirements?
    - compatibility with student machines?
    - a convenient pilot for testing our beliefs on price/performance etc.?
5. Do we require a feasibility study?
6. If yes, what criteria form part of the study?
    - Do we need to provide figures for price/performance improvements?
    - If yes,
        - why?
        - what constitutes satisfactory/unsatisfactory savings?
    - Is PC/NT the only platform we should consider?
        - If not, is linux?
        - Sun?
        - dual-boot linux/NT?
            - why?
    - Are CS1's teaching plans well-enough known that a specification can be prepared for us to work to?
        - If so
            - what is the EARLIEST date it could be ready?
            - what is the LATEST time we can wait for this?

- Will all necessary software (or suitable substitutes) run on x86?

- If not
    - Is CS1 confident that it understands what we are proposing to do well enough to say that it can work with it?
    - If not
        - It will have to be deferred till 1998, so what will we do with the 1997/8 money?

- What are the major tasks required of systems staff?
    - Who will be undertaking the major tasks?

What are the major tasks required of academic staff?

Strategic directions for the Department's Computing Service

Project Costing and Justification.

The concept paper itemised drivers for change and a couple of suggested responses. These contain assumptions which need to be examined, justified and costed.

Drivers for change

The drivers for change were

The CS2 teaching lab will become due for overhaul in 1997 and CS1 in 1997 or 1998

The CS2 machines are entirely monochrome Sun ELCs with 200Mb external swap discs manufactured in 1989 and 1990. At 6-7 years old they are the oldest teaching machines in use. The CS1 X-terms were purchased in the summer of 1994.

Question: Where else could we spend the money in both 1997 and 1998?

Answer: PGs and staff (removing any remaining Xterms); Build a high-bandwidth backbone; Replace routing function of fileservers by purpose-built routers; Instigate a shift to home/mobile computing through investment in portables etc.

Note: We should advise Faculty that our spending profile may be well different from what they have been told.

Assumption: That other issues don't get in the way, such as the required software set

Question: What are CS2's teaching plans for 1997/98?

Question: Are there suitable linux-based alternatives to required teaching packages, particularly Poly ML?

x86 machines (PCs) offer better price/performance than Sun workstations

There is an order of magnitude difference between the R&D effort available to Intel and that available to Sun/SPARC. In the same way that workstation price/performance keeps ahead of supercomputer performance it is apparent that PC price/performance already exceeds that of Suns and can be expected to continue to do so.

Assumption: That this will continue and not be countered by e.g. highly parallel Sun configurations or by Sun switching to x86 themselves.

Assumption: That Sun will not simply cut prices

Question: Exactly what are the hardware savings?

The cost of ownership of Suns is increasing due to linked hardware and software maintenance and the specialised nature of Suns.

The terms of the Solaris operating system are that it can only be maintained on hardware that is maintained by Sun and hardware maintenance is costly due to the specialised nature of SPARC chips and motherboards. This means we are paying heavy maintenance on hardware that we would otherwise not bother with (e.g. Sun ELCs) and as we shift from X-terms to clients this will increase. The result is to increase the cost of ownership of Suns considerably over other equipment.

If we run Linux/PC the software is free, maintenance is distributed over the Internet in the same way that GNU is maintained and the hardware is made up from commodity parts that can be bought from numerous suppliers.

Assumption: That we cannot find a way of reducing maintenance costs

Assumption: That moving to PCs frees off these costs - if we are still redeploying old clients can we avoid having to maintain them e.g. by freezing Solaris at 2.x?

Assumption: That maintaining PCs is as cheap as we think (e.g. can we afford the technician time and are we confident of the effects on CO time?)

Question: Quantify please

Linux is now a credible service operating system

Evidence on the Net, in magazines and general discussion shows that Linux is available as a maintainable operating system. Several major software vendors are now bringing out Linux versions of key applications.

Assumption: This trend will maintain

Assumption: We can obtain and afford the applications we need.

Assumption: That by so doing we will not cut ourselves off from new technical developments such as highly-parallel hardware configurations

Question: What applications do we need to consider and what are the costs of transition?

We need access to standard applications (e.g. spreadsheets and the applications set of CS1Ah)

CS1Ah is attempting to teach students about applications on the operating system with probably the smallest portfolio of affordable applications and is fighting the system all the way. If it wishes to continue to do this and it is possible to dual-boot the CS1 machines as Windows 95 or NT client then it will make the course very much easier to run.

Assumption: That the CS1 machines run a dual-booting configuration or NT only

Assumption: That CA1h continues pretty much as it is

Assumption: access to Windows/NT is a benefit to CA1h and that it is not happy as it is.

The CS1 curriculum may shift to using Java, something not well suited to the current lab or demand high network bandwidth or sound

Java programming is based on the assumption that Java code will be interpreted in a CPU-rich environment in a browser on the desktop. The CS1 lab is based on central servers and X-terminals. As the X-terminals have no compute power any Java code must be interpreted on the server, something that will probably degrade performance badly.

Assumption: That CS1 will want to shift from C to C++ or Java

Assumption: That it can or will happen on a timescale that meshes with this proposal (i.e. October 1997)

Question: What is the Board of Studies timetable for any significant change?

Assumption: That Java is significantly heavier on CPU than C or C++

Assumption: That Parkinson's Law will not apply and that the temptation to set 'greedy' exercises that soak up all available capacity will be resisted.

Students are increasingly running Linux on PCs at home and there are clear advantages in using such computing as an extension of work done in our own labs

The annual undergraduate survey shows that nearly 40% of undergraduates across the University expect to have access to a PC or equivalent at their place of residence during term. We have seen a steady increase in the use of home PCs as determined by non-TeX-based handin material, enquiries to the systems staff and general anecdotes. We are increasingly seeing queries about Linux and would say this is a conspicuous trend.

There are advantages all round if students can work where they choose (e.g. home) using equipment purchased and maintained by themselves. This is enhanced if they can then come to the labs and use identical configurations. Student computing will increase whatever we do - we should embrace it as a planned extension of our lab computing facilities and plan accordingly.

Assumption: That this trend will continue and that it will be based on the same Linux that we support here or something close to it

Comment: The same arguments apply to staff home machines

We are under increasing pressure on staff and need to explore ways of running our systems more efficiently or contracting out the work.

This is a driver both for and against change. If we stick with Unix then it is not clear that moving to Linux confers any managerial benefit. If however we build dual-booting into the plan at the outset then there are two major possible benefits - first we solve the problem of compatibility of our equipment with Windows/NT - based software imposed from outside (e.g. FIS/Student) and second, there is expertise elsewhere in running Windows/NT labs and it opens up the possibility of contracting the work out to EUCS.

Assumption: That Linuxification will not stop just with the labs

Question: What are the implications if it does?

Assumption: That we can provide a convenient dual-boot facility that people will use

Assumption: That we can come to some arrangement with EUCS for contracting out work

Assumption: That the time is not better spent on improving what we have

Strategic Options

Whilst a full strategic analysis requires a top-down evaluation we actually believe that there are very few workable strategies as the end result. The meeting on Friday considered two.

Option 1: Yet more of the same

We would continue to meet service requirements by purchasing Suns.

- This does not address any of the drivers for change except the purely mechanical one of needing to replace hardware
- It will result in us having more costly equipment (i.e less powerful, older or less abundant) than could be afforded by other courses of action
- It is a minimal short-term effort solution which could release effort to work on improving the way we run the systems we have

Option 2a: Go for Linux on x86 machines

We would introduce Linux into one segment of our service. Of all possibilities (academic staff, other staff, CS3/4/MSc, CS2, CS1), CS2 is probably the easiest - it is a single lab of homogeneous machines and runs a relatively small set of software with no 'show-stopper' bought-in applications.

We have run Linux systems within the department for a couple of years and believe that we understand the work required to build a Linux laboratory and then maintain it.

We would wish to learn from running the lab with a view to applying that knowledge to other areas of the department in subsequent years. If we found that we could not adopt Linux elsewhere then our options are to run the CS2 lab as a turnkey or to redeploy the PCs elsewhere. We believe both are possible.

Option 2b: Go for PCs in the CS1 lab with dual-boot capability for Linux/Windows

We would replace the CS1 X-terms by PCs (probably re-using the monitors) and run them with Windows NT or as a backstop, Windows 95.

Given that we have all 1996/97's capital still to spend, we could replace the CS2 lab in the summer and by October 1997 be into the 1997/98 financial year and thus able to finance the upgrade to the CS1 lab. It is difficult to see how we could undertake to build and maintain two large new labs within a single autumn without some help (in which case the new CS1 lab would have to wait till October 1998), *unless* we could persuade EUCS to take on some or all of the running of the CS1 lab for us. If we stick to a mainstream operating system such as NT this at least becomes a possibility worth talking to them about.

This also releases effort to look at the use of Linux in CS2, and allows students to use public labs more easily without extra load on our (compute) servers.

Option 2c: Cascade the existing CS1 lab up to CS2 and replace the CS1 lab

Preferred Solution

The preferred solution would be to go for optons 2a **AND** 2b in the late summer of 1997 but note that any solution involving moving CS1 to PCs in 1997 will require the assistance of EUCS.

Other considerations

Equipment lifetime

At present we manage a 5 year lifetime for Sun workstations, extended to 7 or more by redeploying them as X terminals. We do not yet know if the lifetime of PCs will be shorter than Suns due to faster obsolescence or longer due to e ease of replacing standard components but even in the worst case we hope this can be offset by reusing the anticipated considerable savings in maintenance for capital purchases.

Effort 'hump'

We would like to see if it would be possible to fund a fixed-term post to help us over the initial effort 'hump', the argument being that effort thus spent will result in recurrent effort savings later.

Software licences

There will be an appreciable software bill for re-equipping the CS1 lab. This will need to be funded e.g. out of maintenance savings before these start to be reused for capital. There will also be ongoing software maintenance costs which have yet to be quantified.

Maintenance savings

Savings are based on the assumption that as the PCs in the lab will be made of standard components and modules it will be possible to maintain them on a module replacement basis by our technicians - note this will place an extra demand on technician time.

Next stages

This paper outlines the concept. If the concept is acceptable it needs to be costed and a strategy and timescales worked out. The assumptions need to be checked and some attempt made to find other strategies until all concerned are convinced this is the best option.

This will take some time, so we propose to use the above possibilities as a working basis and direct some effort at them ?

Teaching and resource consequences need to be worked out and fitted into the project outline and the process of identifying the critical path and who does what begun.

Project outline and decision points

Decision 1 required:

What are the highest priorities for major investment of capital and effort

a) for the period to August 1997

b) for the period to August 1998

This paper is based on the assumption that the answers are:

a) for the period to August 1997:

1: Begin to address the apparent decline in price/performance of Sun versus x86

2: Replace the obsolescent CS2 lab with PC/Linux for October 1997

b) for the period to August 1998

3. Continue a managed and supported shift from Sun to x86, building on the experience from 1997

4. Replace the CS1 lab with PCs

Note: Because we have not yet spent 1996/7 capital, from a teaching perspective we have ducked October 1996 completely and will have two years' money available for spending in October 1997. If we don't spend (see diagram)

October 9, 1996

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Professor Mike Fourman
Head of Department
Computer Science

Dear Mike

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Clearly if we are doing jobs that others can do, this time is taken away from jobs that only we can do. There is little point for instance in Alastair, who has 15 years experience in systems management using it to do room allocation! Such duties should be delegated to full-time administrators (such as Cindy or Monika) backed up where necessary by senior staff. There are other instances.

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COs

The above is NOT a substitute for the current shortage of COs. At least one replacement is required for JTB/DDR/Morna who will be immediately asked to look after LaTex as at present this is unsupported.

General involvement

We have had several rounds of defining structures within the department and there is still some confusion about who does what, reporting to whom.

It is important that the structures, procedures and accountability arrived at here are well advertised, starting with announcing them at a departmental meeting. We do actually seem to have made some real decisions and achieved a degree of unanimity amongst the senior COs - it is important for everyone else to be clear about what is happening and understand that the arrangements are backed formally by the department.

Specific Projects

We are agreed that the situation is now such that a number of major items are unsupported and that there is no point in pretending otherwise. LaTeX is still rotting badly despite Martin Reddy's excellent work and the Web infrastructure must be regarded as effectively frozen given Rosemary's other heavy commitments.

In addition there is no point in attempting major new projects at the present time, one particular instance being the student database application. We simply don't have the effort to contemplate it.

Yours sincerely,

Paul Anderson
John Butler
George Ross
Alastair Scobie

Syssies Progress Meeting

Thursday 10th October, 1996

AGENDA

1. Minutes of Previous Meeting and Matters Arising

2. Agenda Items

Solaris upgrade (Raised by GDMR)
A discussion on how the summer upgrades went, what problems we encountered and whetherany lessons can be learned.

Disk quotas for staff/pgs (Raised by GDMR)
Should we consider applying disk quotas for staff and pgs ?

LISA (Raised by PAUL)
A quick report on issues raised by the LISA conference.

Apple technology briefing (Raised by CC)
A quick report on issues raised by the Apple technology briefing.

Labelling equipment for the inventory (Raised by SAMO)
Should we be labelling equipment ?

Faults and Support (Raised by SAMO)
A discussion on whether we should update supportto a faults-like mechanism. Also some minor points about faults in general.

4. Any Other Business

faults
check duffocley

Minutes of the Syssies Progress Meeting

Thursday, 10 October 1996

Present: CC, PAUL, AJS, SAMO, GARY, LMB, DWB, ARCH, DDR, GDMR, RWT, RS, JST, JHB

1 Minutes & Matters Arising

Quad Ether Card

CC will order it.

Action - CC

PDF on Unix

CC and JST will sort out an order for Adobe Distiller on Unix. CC will install it.

Action - CC, JST

Root Passwords

GDMR will put in new root passwords on the compromised machines, and will then come up with a random salt scheme for root passwords, so the encrypted versions of identical passwords look different in the password file.

Action - GDMR

Grand Machine Halls Tidy-Up

The date we do this depends on when the electricity is going to be shut down before Christmas: the Works Department want to shut off the electricity for 3 days on the weekend before Christmas; EUCS want it to be two 2-day weekends before Christmas instead. AJS will talk to people about it and report back.

Action - AJS

CSTN LaTeX Style

All home-produced technotes should be converted to the new style.

Action - ALL TECHNOTE MAINTAINERS

2 Agenda Items

Admin Duties

Gordon Duckett is investigating the department's admin functions with a view to recommending changes. The Gand of Four will give a list of our admin duties to him.

Action - AJS

Consistency of Web Data

Irene is investigating ways of checking the consistency and soundness of our web pages and the links they contain. She will report back at the next meeting.

Action - IRO

enquiries@dcs.ed.ac.uk

The `enquiries` address may be mentioned in the QI technote; CC will check and remove it if so.

Action - CC

3 Agenda

Solaris Upgrade Post-Mortem

The Solaris upgrade went very smoothly on the whole. (Three cheers for DWB!) The new disk cache software seems to work very well.

The latest version of `sshd` had to be backed out because of an incompatibility with Solaris 2.4. We should watch out for this sort of thing while we're

still running a mixed OS environment: the LFCS machines have not yet been upgraded.

We should now start considering the possible problems of Solaris 2.6. DWB will look at this and report back before Christmas.

One possible problem is that the 200Mb disks on many of the client Suns may be too small for Solaris 2.6. RWT and DWB will investigate and come up with some possible solutions.

Action - RWT, DWB

Staff/PG Disk Quotas

After a discussion, nobody felt strongly that we should pursue this idea.

LISA

Copies of the papers from the recent LISA conference are available in `/home/paul/Doc/LISA10`. Paul's detailed report is available at `http://www.dcs.ed.ac.uk/home/paul/InternalPapers/LISA10_Report.pdf`. There were several things which we should follow up further:

- A Windows NT administration workshop will be organised in the next few months. We should participate.
- Lots of commercial backup programs and fax programs were in evidence. We should investigate.
- There was a prize-winning paper on eliminating mail loops.
- There's a Majordomo web interface called MajorCool.
- For entertainment we should read a paper on QI tied in to an Oracle database.
- There's a paper on system administration using Java; we'll see a lot more of this in the future.

Our work of several years ago was cited in many papers; it's a pity that we don't have the resources to carry out such work today.

Apple Higher Education Briefing

This was a free one-day event in Manchester. A detailed report will be circulated by CC. Lots of fun software was demonstrated. The two things which concern us most were:

- MacOS 8, the major new release of the Mac operating system, isn't after all going to be forced on us in the next few months. Instead it will be released for a gradually increasing number of PowerPC architectures over the next two years, in parallel with continuing development of the current OS, System 7.
- The recently announced technology-sharing agreement between Apple and Sun may mean remote administration of Macs from Suns, and vice versa. No details were given though, and we shouldn't expect any progress on this in the short term.

  The next HE Briefing is planned for February, and may be held in Edinburgh or Glasgow if there's enough demand. If you want to go, mail `evesdown.j@euro.apple.com`.

Labels and Inventories

Samantha, Gary and Lindsey would like labels on all equipment, to make inventories and identification much easier.

This triggered off a discussion of grand plans for automatic inventories.

Paul will investigate automatic inventory systems, possibly involving barcodes, reporting back on 7 November.

In the meantime, the CSOs should feel free to go ahead and label whatever they like.

Faults and Support

Retiring old faults

There are lots of current faults, some of which are several years old. The CSOs want to quietly retire many of them, but the faults program doesn't allow this. It should be hacked to add new facilities like this.

Action - IRO

Support: ream doesn't cut the mustard any more

The arrangements for dealing with support mail are inadequate; there's no history-tracking mechanism for instance. Support and faults should be dealt with in a more uniform way, preferably using nice new software. The G4 will establish a priority and find resources to allow us to investigate new software for the job.

Action - G4

A shared support account

The CSOs want a shared login account to deal with support room work. It was felt that a shared login account was not a good idea, but that the CSOs could get a similar effect by doing an "`nsu support`" at the login prompt. Paul can tell them how to do this.

This leaves the problem of `xlock`ing the display on such a login; this will be tackled by GDMR.

Action - GDMR

4 Any Other Business

Spring-cleaning

GDMR pointed out that it's about time for a spring-clean of the `hosts` and `lcfg` files.

Backup tapes

The CSOs are fed up of untidy heaps of backup tapes, and want some proper tape storage equipment. JHB told them that they were free to order whatever tape storage equipment they needed.

Everyone was reminded that the fire safe is old and not guaranteed to save tapes from fire.

Action - CSOs

5 Deferred Actions

24/10/96 JHB to report back on clearing machine halls junk.

24/10/96 G4 to report back on SHEFC mentoring scheme.

24/10/96 AJS to chase extra CDs of 2.5.1 and SDK maintenance.

24/10/96 DWB & RS to consider taking over maintenance of DDR's account creation software.

24/10/96 GDMR to report back on password wrappers.

7/11/96 CC to report back on XEmacs 19.14

7/11/96 PAUL to report back on automatic inventory systems and barcodes.

21/11/96 DWB to report back on mail loop solutions, including putting a wrapper round `resend`.

5/12/96 G4 to report back on their foolproof and speedy new kit-buying procedure.

19/12/96 DWB to report back on Solaris 2.6 Upgrade investigation.

Minutes of the Syssies Progress Meeting

Thursday, 24 October 1996

Present: IRO, JST, CC, GDMR, RWT, DDR, ARCH, GARY, SAMO, PAUL, DWB

1 Minutes & Matters Arising

Root Passwords

GDMR has created `cpp` macros to handle root passwords, which Sun maintainers can use in their `lcfg` files.

Action - SUN MAINTAINERS

No random salt scheme has been implemented yet - George is still considering the implications of it.

Info Pages and Personal Web Pages

Mike wants some sort of web page for each member of the department.

We wondered if first years should have home pages - DWB will ask the teaching staff what they think.

Action - DWB

Allowing first years to have home pages would mean changing our current policy of imposing user-only access on first year home directories.

IRO pointed out that it appears to be University policy that users should *not* automatically have web pages of their own.

Sun "Internet Server"

Sun are rumoured to be releasing an Internet Server soon. Dave will keep his ear to the ground and tell us when he hears more about it.

2 Agenda Items

Colour Printer

Yes we can buy one, but which one? We like the look of a Hewlett-Packard, but just to complicate things CC mentioned the new Apple Colour Laserwriter 12/660 PS. CC will forward details to JST, who will consider and compare.

Action - JST, CC

Database Project

The (departmental) *database project* has been created/expanded, and Dave and George are now part of it. The people involved are therefore now RS, DWB and GDMR. They're first going to look at the technology available.

Action - RS, DWB, GDMR

Secure NFS and Kerberos

George has been trying to get these working.

Secure NFS is now working, but is nasty to set up and nasty to use — for example, its NIS support is broken. George will carry on looking at it.

Kerberos version 5 is up and running. Kerberized NFS half-works. It's much nicer to administer than Secure NFS.

Secure RPC Authentication is under development at Sun.

In addition, **PGP** looks useful and is already installed. DWB is looking at it, and at a higher priority than formerly.

Action - DWB

Technotes and Documentation

CC is reorganising technotes and `/home/technote` and will mail round details later on.

Action - CC

CC will do a Project Plans web page, which SAMO will maintain.

Action - CC

JST will sort out PDF printing problems.

Action - JST

The Answerbook information is several versions out of date. Dave will install a newer version.

Action - DWB

Portable Machines

SAMO needs to know how to advise people who want to bring their own portable computers in and plug them into the network. A section covering this should be added to "Remote Access" technote 5.

Action - DWB, CC

We will consider our policy for bringing in portables.

Action - AJS, GDMR

Digger

Digger (DDR) is officially leaving at the end of November, but his CO duties will end in the first week of November. He's going to spend this time handing over QI to its new maintainer

Solaris CDs and Sources

We'll try and get extra Solaris CDs when 2.6 comes out.

Graeme Wood will contact us about SDK maintenance.

Sun are improving their management of Solaris source releases: instead of a 4-5 month lawyer-fest with every release, we now need only one legal wrangle, after which the sources will be on maintenance.

3 Deferred Actions

7/11/96 JHB to report back on clearing junk from the machine halls.

7/11/96 G4 to report back on SHEFC mentoring scheme.

7/11/96 DWB & RS to consider taking over maintenance of DDR's account creation software.

7/11/96 GDMR to report back on password wrappers.

7/11/96 CC to report back on XEmacs 19.14

7/11/96 Gang of Four to report on prioritisation/resourcing of efforts to find nice new support/faults software.

7/11/96 PAUL to report back on automatic inventory systems and barcodes.

21/11/96 DWB to report back on mail loop solutions, including putting a wrapper round `resend`.

21/11/96 GDMR to report back on root passwords and random salts.

21/11/96 DWB, RWT to report back on Solaris 2.6 upgrade issues.

21/11/96 PAUL to report back on printing barcodes on inventory labels.

5/12/96 G4 to report back on their foolproof and speedy new kit-buying procedure.

19/12/96 DWB to report back on Solaris 2.6 Upgrade investigation.

Syssies Progress Meeting

Thursday 7th November, 1996

AGENDA

1. Minutes of Previous Meeting and Matters Arising

2. Report from GO4 meetings (New standing item)

3. Agenda Items

   Maintenance and power-down weekends (Raised by GDMR)
   A status report.

   Database project (Raised by DWB and GDMR)
   A status report.

   News service (Raised by GDMR)
   GDMR would like to discuss the recent performance/reliability of the "News" service.

   Project mechanism (Raised by GO4)
   A discussion on GO4's proposal for a lightweight project mechanism.

4. Deferred Actions

   JHB to report back on clearing junk from the machine halls

   GO4 to report back on the SHEFC mentoring scheme

   RWT & GARY (was DWB & RS) to consider taking over maintenance of DDR's account creation software.

   GDMR to report back on password wrappers.

   CC to report back on Xemacs 19.14

   GO4 to report on resourcing of research into new support/faults software.

   PAUL to report back on automatic inventory systems and barcodes

5. Any Other Business

Minutes of the Syssies Progress Meeting

Thursday, 7th November 1996

1 Minutes & Matters Arising

Info Pages and Personal Web Pages

We wondered if first years should have home pages - DWB will ask the teaching staff what they think

Action - DWB (carried forward)

Colour Printer

Yes we can buy one, but which one? We like the look of a Hewlett-Packard, but just to complicate things CC mentioned the new Apple Colour Laserwriter 12/660 PS. CC will forward details to JST, who will consider and compare.

Action - JST, CC (carried forward)

Technotes and Documentation

CC is reorganising technotes and `/home/technote` and will mail round details later on

Action - CC (carried forward)

CC will do a Project Plans web page, which SAMO will maintain

Action - CC (carried forward)

JST will sort out PDF printing problems

Action - JST (carried forward)

The Answerbook information is several versions out of date. Dave will install a newer version.

Action - DWB (carried forward)

Portable Machines

JHB and AJS will ask EUCS to think about providing permanent public access points. Meanwhile, GDMR and AJS will consider how to deal with portable machines for the short term

Action - JHB, AJS, GDMR

2 Report from GO4

Paul explained the reasons for adding this new section to the meeting. Basically, it's an opportunity for syssies to question GO4 decisions. GO4 will ensure that GO4 minutes are published in advance of syssies meetings

JHB argued why the "service manager" role has now been subsumed by the GO4. He will continue to act as a "syssies" spokesperson and as a focal point for escalated complaints

3 Agenda Items

Maintenance and powerdown weekends

The JCMB substation powerdown will be 27-29th December. The normal machine hall maintenance will be carried out on 14-15th December. The technicians will be overhauling the 2501 hub area during the 14-15th weekend, and some COs will be reorganising the machine hall server area on the afternoon of the 15th

JHB will send mail to the department warning it of the disruptions. He will also confirm the machine hall maintenance with Works dept

Action - JHB

Database Technology Review

A meeting of the new database technology team (DWB, GDMR, RS) + AJS produced 4 scenarios which DWB is costing and documenting

DWB will get up to speed with the technologies by playing with an SQL server. We might need to spend some money early on to seed this activity

The team was asked by syssies to consider timescales

News service

GDMR felt that there had been some performance problems with the News service recently DWB reported that the news server had crashed twice in a recent weekend, scrambling part of the spool dir and some internal databases The news server is still recovering from this and this probably accounts for the performance problems.

DWB is still thinking about using the EUCS news server instead of our own.

Project mechanism

PAUL described the GO4 proposal (see GO4 minutes of 1/11/96).

Junk

JHB will announce the availability of the old manuals in the machine halls to the students. JHB and ARCH will discuss the future of the Draftmaster plotter offline

SHEFC mentoring scheme

GDMR has investigated this It appears that this is an Equal Opportunities scheme. He has sent for more details.

Xemacs 19.14

CC reported that he hadn't had enough time to improve the 19 14 installation, but that he will make it the default very soon This shouldn't affect the undergrads and MSc students as they're using it already

Automatic inventory system

PAUL has looked at printing barcodes this is easy He is going to purchase a serial barcode reader

4 Any other Business

Support FAQ

GARY and SAMO are creating a support FAQ on the new support WWW page They asked everybody to check it out

Lindsey

The meeting would like to wish Lindsey well and a speedy recovery.

5 Deferred Actions

21/11/96 DWB to report back on mail loop solutions, including putting a wrapper round **resend**.

21/11/96 GDMR to report back on root passwords and random salts

21/11/96 DWB, RWT to report back on Solaris 2 6 upgrade issues

21/11/96 PAUL to report back on printing barcodes on inventory labels.

5/12/96 G4 to report back on their foolproof and speedy new kit buying procedure

5/12/96 GDMR to report back on password wrappers

5/12/96 GO4 to report back on resourcing of research into new support/faults software

19/12/96 DWB to report back on Solaris 2 6 Upgrade investigation

Agenda for Syssies Progress Meeting

JCMB 2509

November 21, 1996

1. Apologies.
2. Minutes of previous meeting, and matters arising.
3. Minutes of Go4 meetings, and matters arising.
4. Deferred actions:

What	Who
Mail loop prevention	dwb
Root password salts	gdmr
Solaris 2.6 upgrade	dwb, rwt
Barcodes (agenda item)	paul

5. Agenda items:

What	Raised by
Patches	gdmr
Anonymous FTP	gdmr
Hostnames	ajs
Inventory	paul
Software licences and audit	paul
Camera and Mugshots	paul
9Gb discs	dwb, iro

6. AOCB.

Return-Path: <syssies-request@dcs.ed.ac.uk>
Delivery-Date: Tue, 12 Nov 1996 14:46:48 +0000
Received: from gighay.dcs.ed.ac.uk by rainich.dcs.ed.ac.uk with SMTP (PP);
Tue, 12 Nov 1996 14:44:51 +0000
Message-Id: <23845.199611121436@gighay.dcs.ed.ac.uk>
Received: from dcs.ed.ac.uk by gighay.dcs.ed.ac.uk;
Tue, 12 Nov 1996 14:36:00 GMT
X-Mailer: exmh version 1.6.9 8/22/96
To: syssies@dcs.ed.ac.uk
Subject: GO4 minutes 8/11/96
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Date: Tue, 12 Nov 1996 14:35:56 +0000
From: Alastair Scobie <ajs@dcs.ed.ac.uk>

Money
=====
JHB hasn't managed to get a good estimate of the money available out of the system. He expressed concern that our #30k slush-fund budget had been dropped to #5k for this year. The meeting agreed that this was not acceptable and that we should ask Mike to reinstate the budget to #30k. We further agreed that we should keep a tight watch on spending from this budget so that we have an accuratish idea of how much is left at any time.

Action: JHB to discuss the slush-fund budget with MIKEF and continue
to press the "system" for estimates on how much money we have left

Management Description
======================
MIKEF has asked us to write up the new mentoring/CSO setup/GO4/Service manager setup for presentation to Planning&Resources and the Departmental Meeting.

Action: AJS and JHB to combine their previous ramblings

SHEFC Grant Paper
=================
MIKEF has asked GO4 to consider a SHEFC document calling for grant proposals to improve research capabilities. (Document available from any of GO4).

The meeting agreed that the most promising avenue would be to propose a project to investigate better integration and management of heterogeneous systems (concentrating on Unix (any flavour) and Windows NT platforms). This would be useful to us and widely applicable to Scottish science research.

Action: GO4 (& others if they wish) to consider

Service Description
===================
Samson had written to Mike complaining about the level of service he was receiving from the CO team. The GO4 will reply with a considered response.

Action: GO4 to consider and ??? to write draft response

MIKEF has suggested that future such "misunderstandings" could be avoided by reworking the service description and increasing its visibility. PAUL suggested that rather than getting bogged down in providing a very detailed document, we should start with a woolly version which would be refined over time and that we should concentrate on providing a user-centric view. This was agreed.

Action: All syssies to consider, but we didn't finger any one
individual to produce the document.

GO4 "Resources" meeting
=======================

The next GO4 meeting will be the first monthly "resources" meeting.

Mentors should be speaking to their mentees before the meeting to find out what folk have been up to over the last month, what they expect to be doing in the next month and whether there is some spare effort becoming available.

It was suggested, and agreed, that the GO4 should start off the process of folk creating lightweight project descriptions.

Action: GO4 members

Minutes of the Syssies Progress Meeting

Thursday, 5 December 1996

Present: CC, SAMO, LMB, GARY, JST, DWB, RWT, RS, PAUL, GDMR, ARCH, AJS
Apologies: JHB, IRO

1

Congratulations to Rosemary on selling her house, and thanks for the sticky cakes.

2 Minutes & Matters Arising

Colour Laser Printer

The Apple is £1100 cheaper than the Hewlett-Packard. The HP has 20Mb more memory, and *may* cost less to run, but the Apple has twice the resolution and memory's fairly cheap just now. We're going for the Apple: JST will order it.

Action - JST

Answerbook and SDK

The Software Development Kit CD doesn't have more answerbook files on it as we thought, so DWB can't install them. It does however contain the Software Development Kit, which DWB will install.

Action - DWB

VLSI Software Support

DJR now understands the implications of reduced CO support on the VLSI software[1]. He agreed to the idea of standalone dedicated VLSI machines.

[1] We hope.

Barcodes

We've got some security labels with barcodes on them. The technicians will put them on equipment when they PAT-test it, and will also relate their PAT test numbers to the barcode numbers.

Patches

An updated list of patches has been concocted. They will be introduced as soon as is convenient: those patches not requiring reboots, on Monday (9 December); those needing server reboots, at the maintenance weekend; and those needing reboots of everything, at Christmas.

DWB has mailed round the lists of patches.

Anonymous ftp

Nobody grumbled, so GDMR will go ahead with the separate anonymous ftp service.

Action - GDMR

Host Names

AJS has identified the host names which don't conform to the rules. The only ones still to be changed are the NT PCs. Archie will change these.

Action - ARCH

Software Licences and Audit

CC, PAUL and LMB have discussed Mac software licences, and how to keep track of them. They're designing a database[2] and a web page which will inform users what software their Mac can legally use.

AJS will talk to CC about including the PCs in this scheme.

Action - AJS

[2] Actually just a file, until the database project has finished

3 Gang of Four

Syssies Activity Table

The Go4 have found out roughly what the syssies have spent their time on in the last month, and what they expect to do next month. This will be a monthly exercise.

4 Deferred From Previous Meetings

Technotes

CC has discovered that the sensible way of reorganising the technotes is to overhaul the web documentation pages and the technote home directory and the technotes all at once. This will take some time. SAMO will help. CC and SAMO will talk about which tasks SAMO should do.

Action - CC, SAMO

EUCS Public Network Access Points

AJS talked to Scott Currie about this. EUCS are planning to provide public network access points in the main library. These will only support the DHCP protocol. EUCS were under the impression that this limited the points to use by Windows 95 machines only. AJS has enlightened them about Mac, Linux and soon Solaris support for DHCP, and they will bear this in mind. We have asked them to provide open documentation about the setup, to enable members of our department to make full use of the service.

Local Public Network Access Points

We don't want to let people straight in on our "insecure" wire, because it now has several "service-ish" machines on it. AJS will investigate the options for firewalls and report in January. Maybe we could get a PC firewall for £300 to £400.

5 Agenda

Lessons Learned From Power-Down

The Suns have to be brought back up in a carefully structured manner, to avoid things going horribly wrong. Only the system managers of the machines know how to do this properly, and nobody else should attempt it.

AJS will clarify this in the service description.

Action - AJS

The Sun system managers will write down the order in which their machines should be booted.

Action - SYSTEM MANAGERS

6 AOCB

USENIX Grants

PAUL has mailed round staff about USENIX grants. Please try to think about possible applications.

7 Deferred Actions

19/12/96 G4 to tell us about their new kit-buying procedure.

19/12/96 DWB to eliminate mail loops.

19/12/96 GDMR to randomise root password salts.

9/1/96 JST to fix PDF printing problems.

9/1/97 DWB to try out Geoff Ballinger's plans for cut-down Solaris clients.

9/1/97 AJS to investigate cheap PC firewalls for our local public network access points.

23/1/97 CC has been reorganising technotes and the documentation infrastructure.

6/3/97 PAUL and LMB have been designing the inventory database.

Agenda for Syssies Progress Meeting

JCMB 2509

11:00, December 5, 1996

1. Apologies.
2. Minutes of previous meeting, and matters arising.
3. There are no Go4 minutes as such this week. Two meetings were held. The first discussed "task" categories, and made a start on filling in figures against them. The second made a start on next year's equipment spend (see agenda item).
4. Deferred actions:

What	Who
Technote reorganisation	cc
PDF printing problems	jst
Kit buying (agenda item)	Go4
Portables: network access (EUCS)	jhb, ajs
Portables: network access (local)	gdmr, ajs

5. Agenda items:

What	Raised by
Lessons learned from power-down	jhb
M/H reshuffle and tidy	dwb *et al*
Concept paper: Sun/Linux/NT	Go4

6. AOCB.